

STANDARD DRAWINGS

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STANDARD DRAWINGS

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STANDARD DRAWINGS

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STANDARD DRAWINGS

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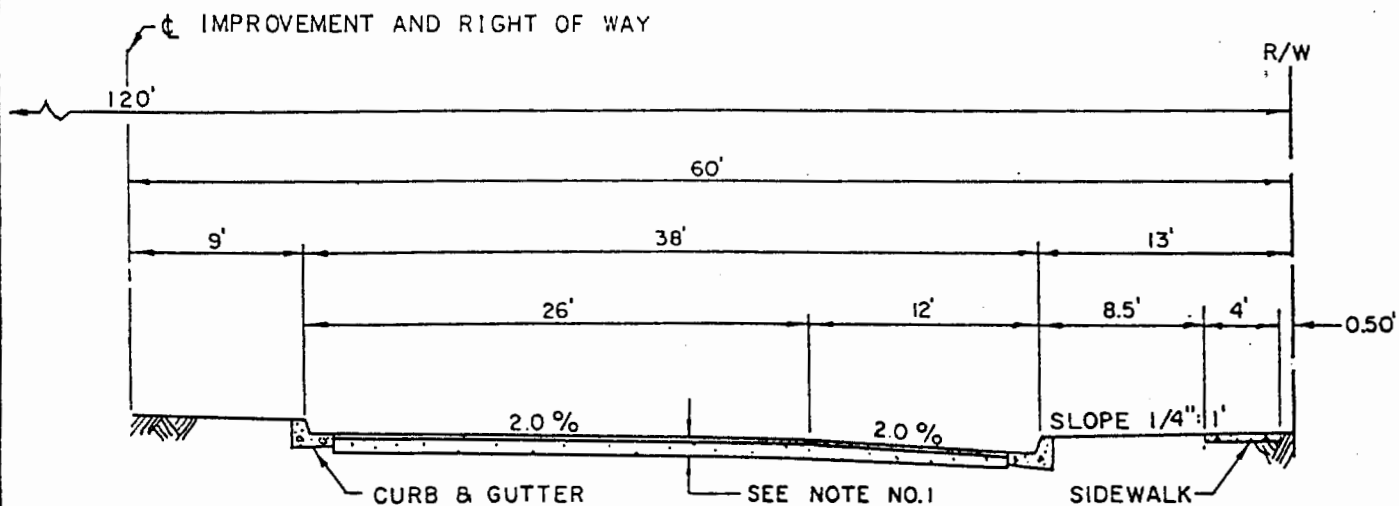
STANDARD NO.

DRIVEWAYS & ALLEYS

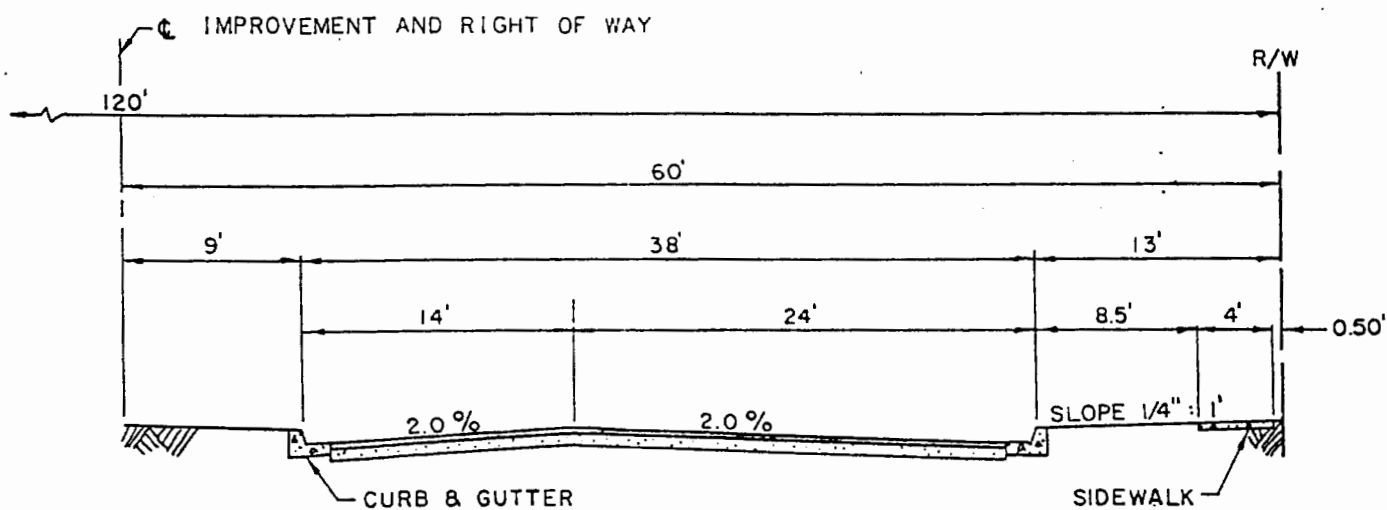
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TYPICAL HALF SECTION



TYPICAL HALF SECTION

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

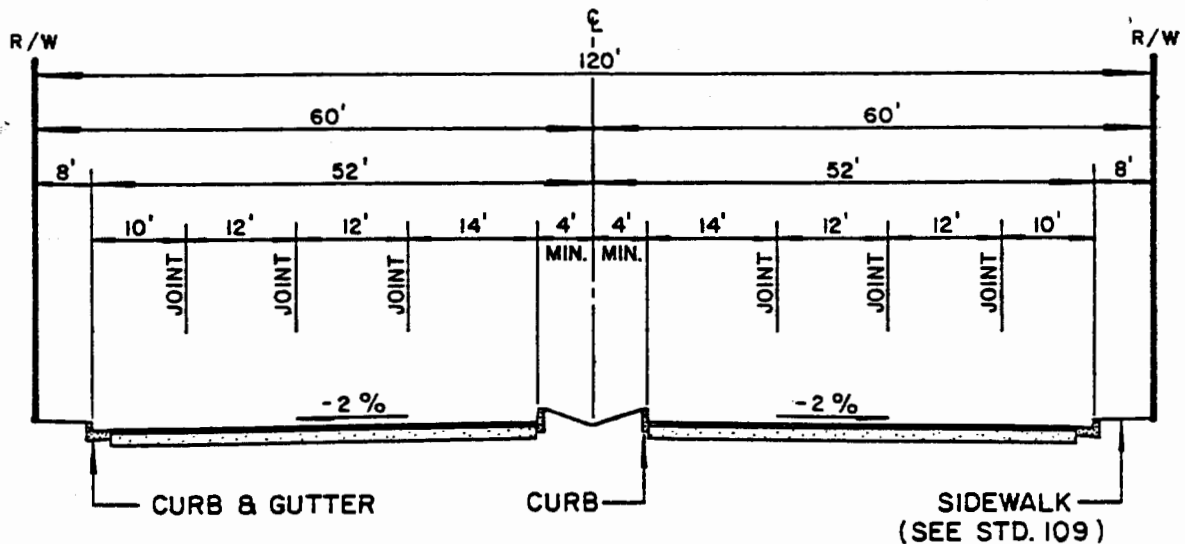
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R.x +-92

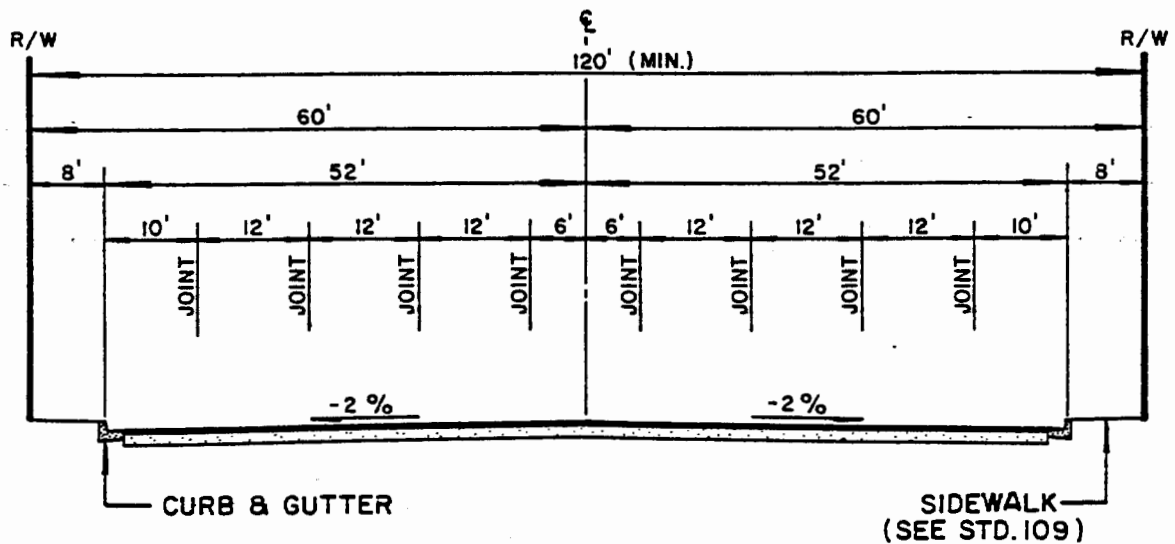
KEN A. MILLER
Director of Transportation

MAJOR DIVIDED
HIGHWAY

100.



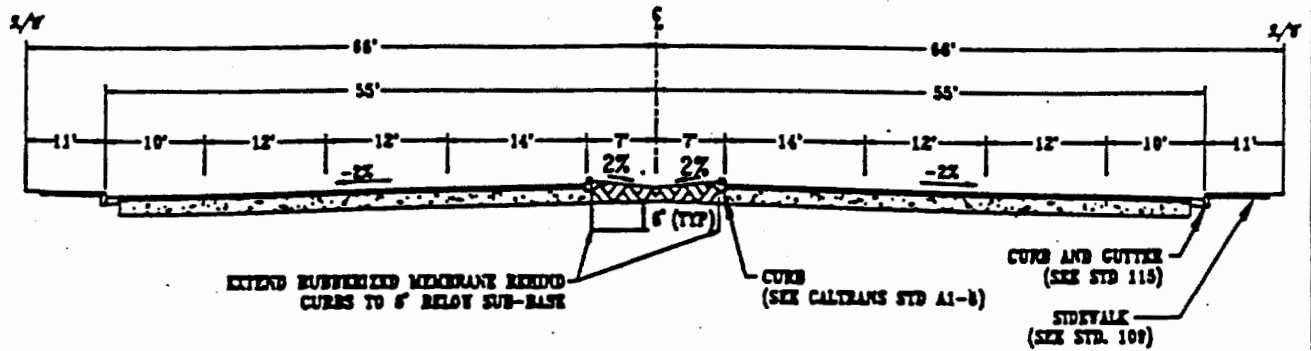
**TYPICAL SECTION
WITH RAISED MEDIAN**



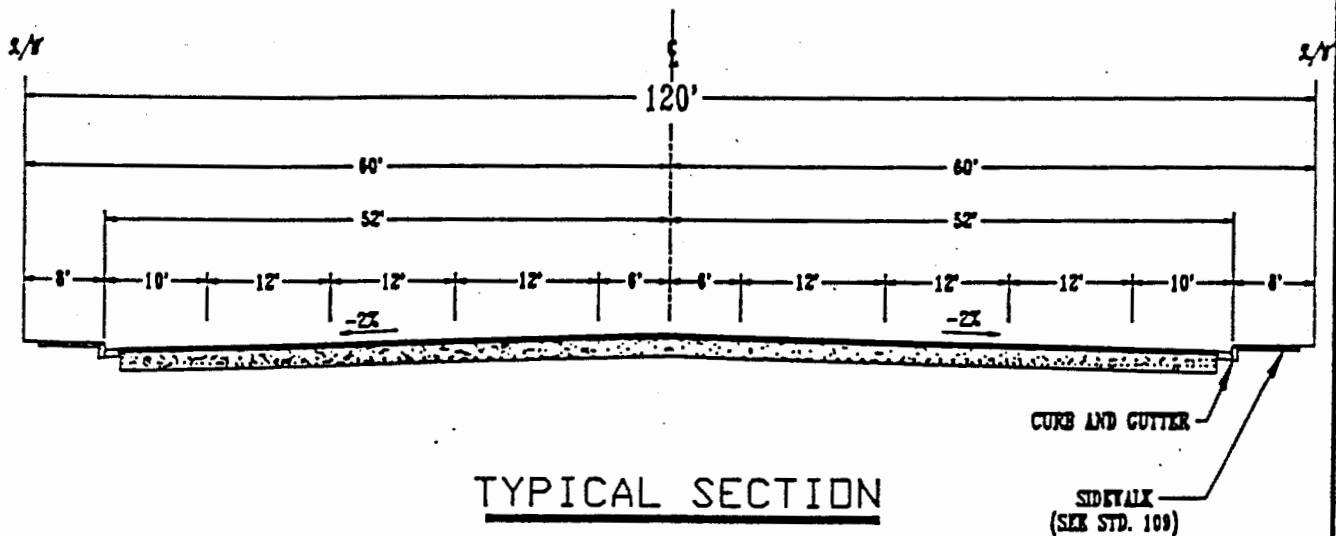
**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE**

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.



**TYPICAL SECTION
WITH RAISED MEDIAN**



**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE**

NOTES:

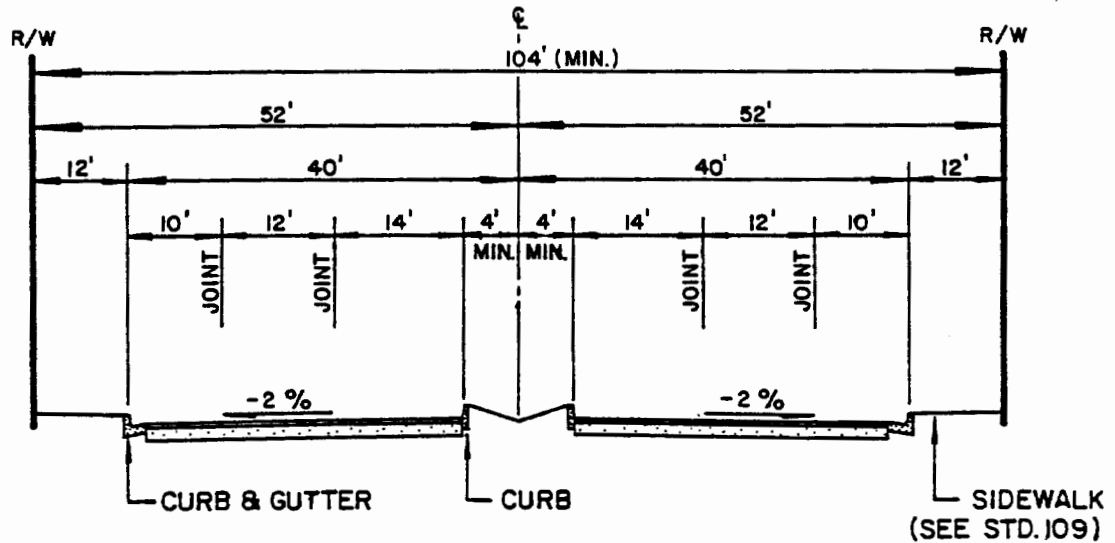
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. TEN FEET (10') SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.
4. IRRIGATION SYSTEM IN MEDIAN AREA SHALL BE DRIP OR BUBBLE SYSTEM.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

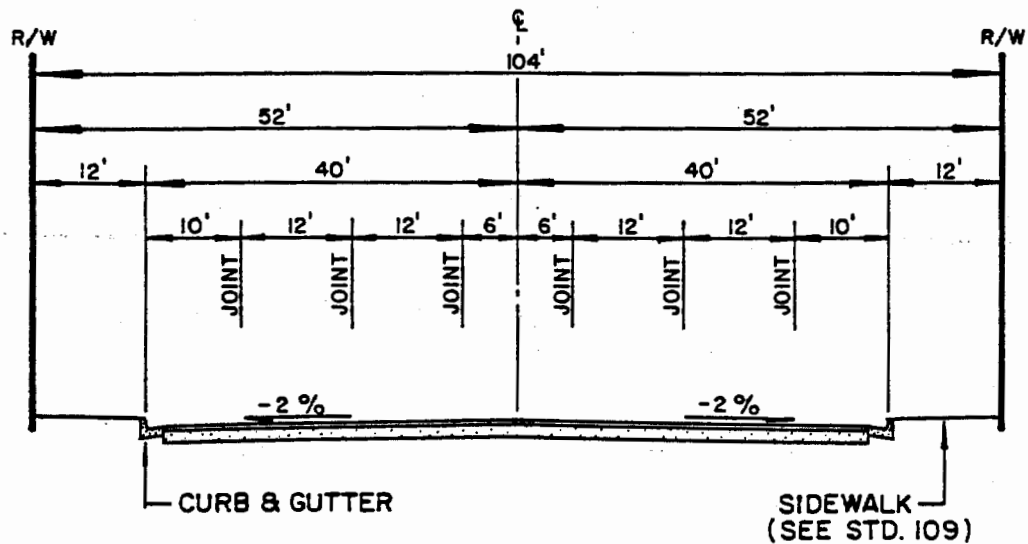
KEN MILLER
DIRECTOR OF TRANSPORTATION

MAJOR ARTERIAL
CHINO HILLS SPECIFIC PLAN AREA

100B



**TYPICAL SECTION
WITH RAISED MEDIAN**



**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE**

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
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3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

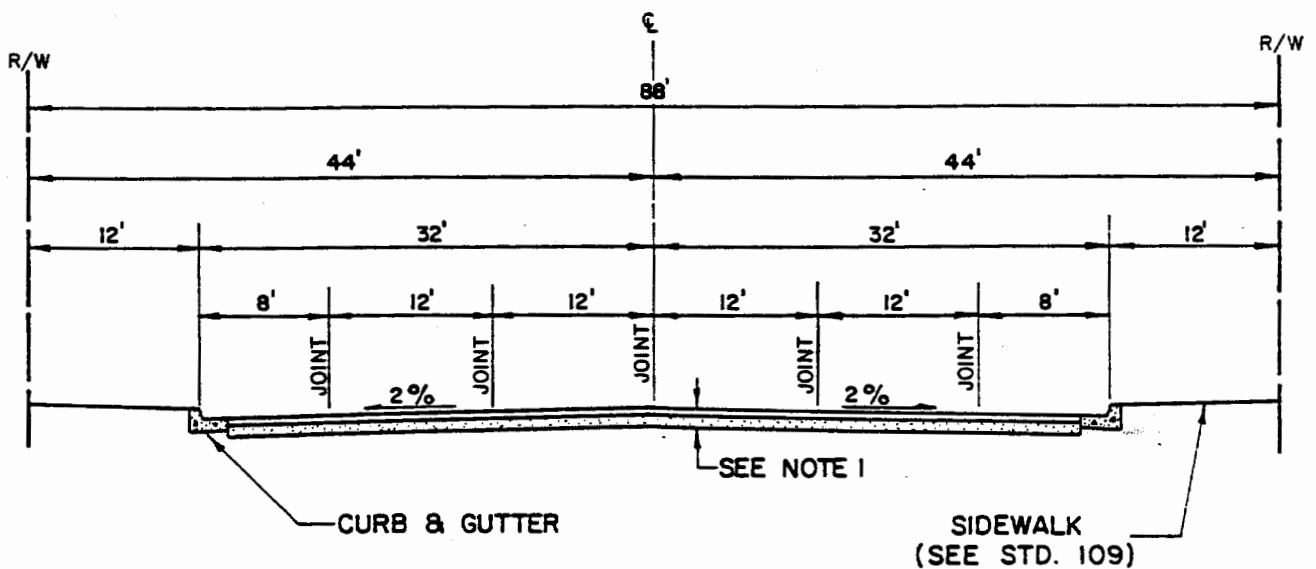
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: 1/30/12

JOHN R. SHONE
DIRECTOR OF TRANSPORTATION

MAJOR HIGHWAY

101



TYPICAL SECTION

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. 8' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

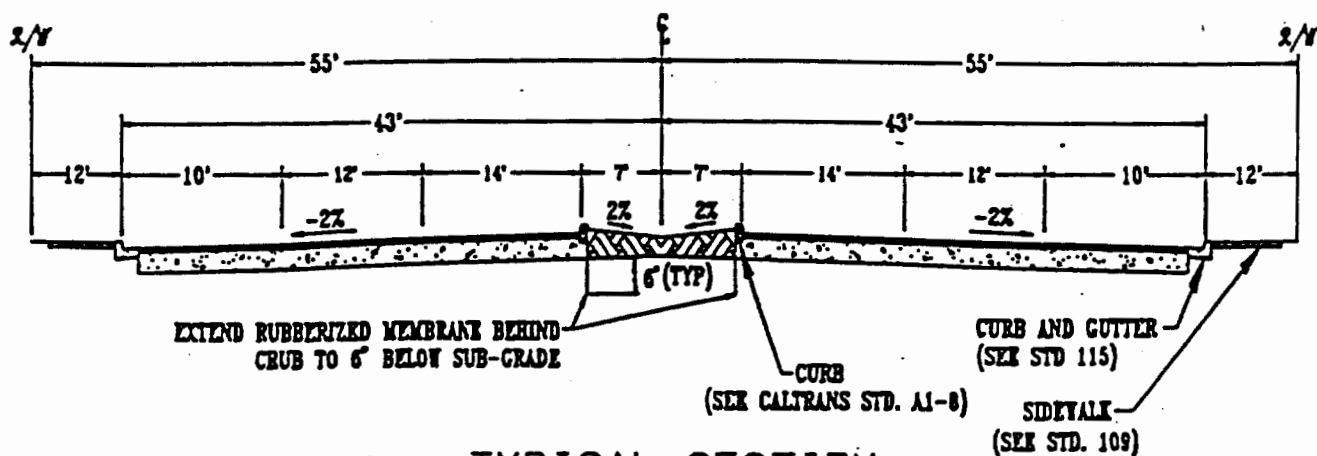
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DATE: *VRK 4 '77*
ADL 12 '81

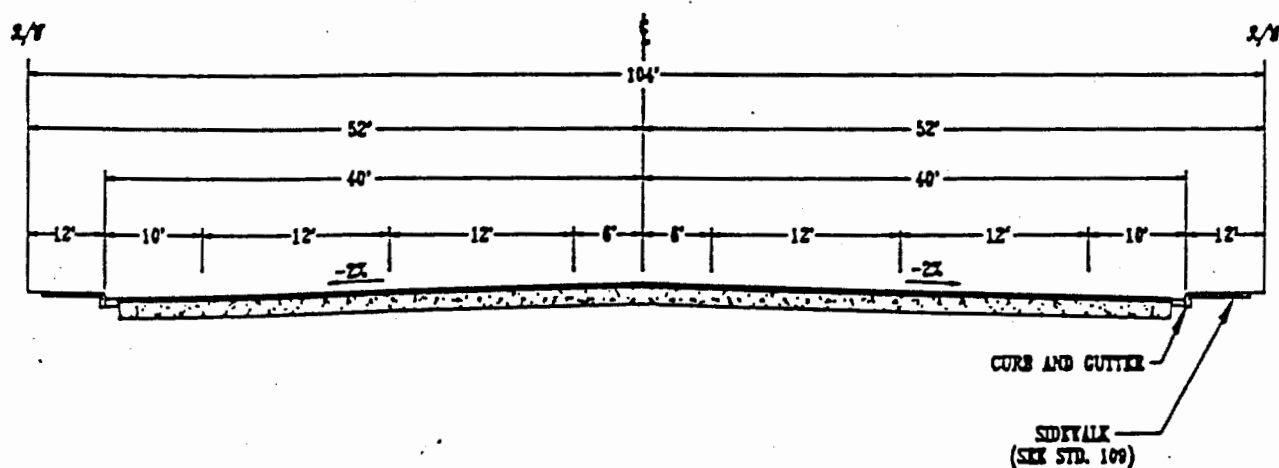
JOHN R. SHONE
DIRECTOR OF TRANSPORTATION

SECONDARY HIGHWAY

102



**TYPICAL SECTION
WITH RAISED MEDIAN**



**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE**

NOTES:

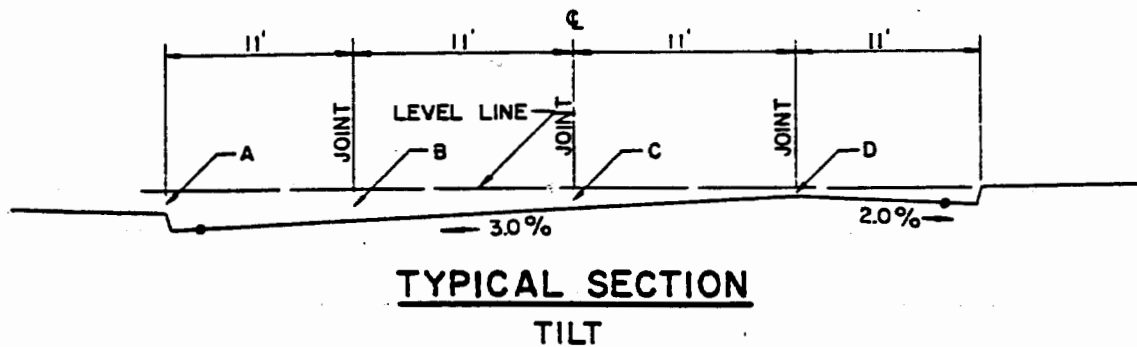
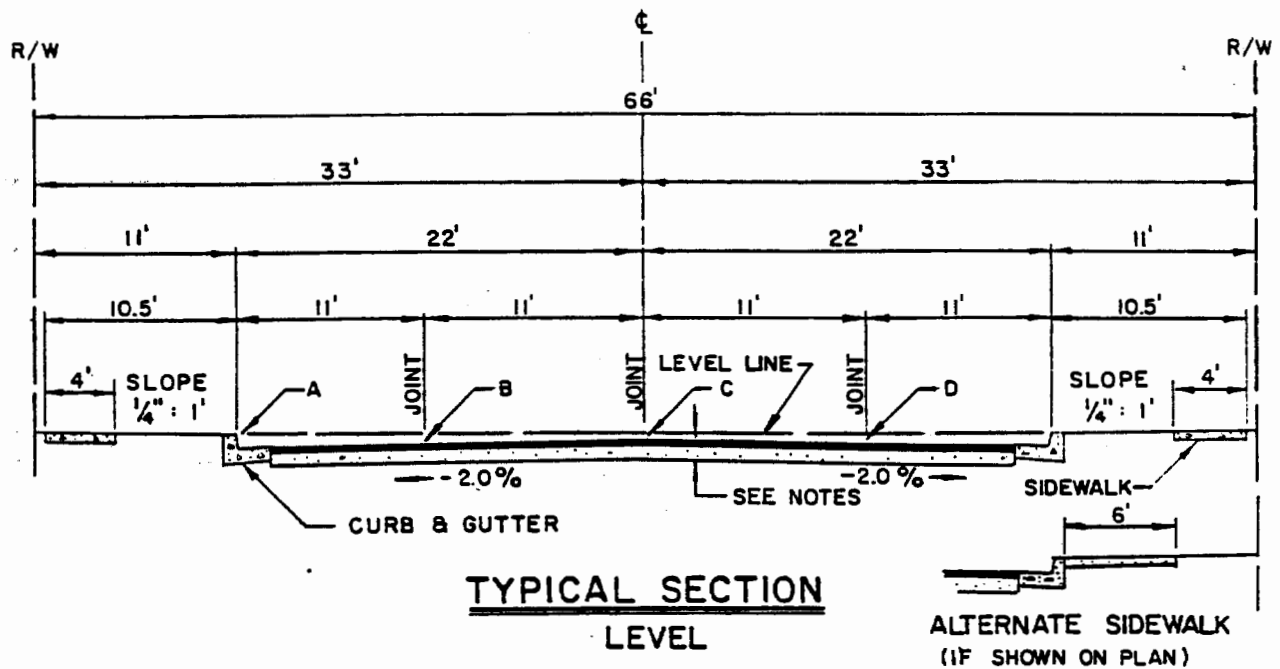
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. TEN FEET (10') SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.
4. IRRIGATION SYSTEM IN MEDIAN AREA SHALL BE DRIP OR BUBBLE SYSTEM.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

KEN MILLER
DIRECTOR OF TRANSPORTATION

MAJOR HIGHWAY
CHINO HILLS SPECIFIC PLAN AREA

102A



		A	B	C	D	
8" CURB	LEVEL	0.00'	0.36'	0.14'	0.36'	
	TILT	0.76'	1.02'	0.69'	0.36'	
6" CURB	LEVEL	0.00'	0.19'	(0.03)	0.19'	() INDICATES ABOVE LEVEL LINE
	TILT	0.76'	0.85'	0.52'	0.19'	

NOTE

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

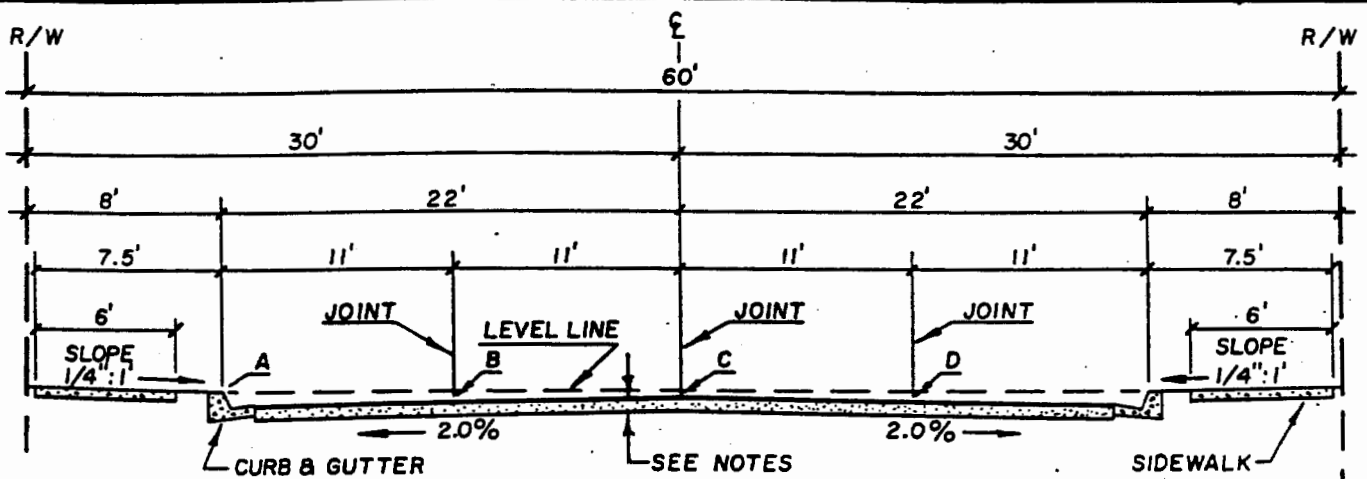
DATE: 3.V.C. 9-65

Rev. 5-74

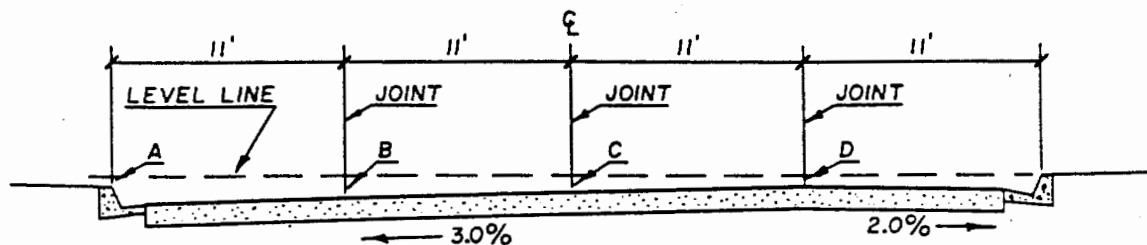
John R. Shone
COUNTY HIGHWAY ENGINEER

COLLECTOR STREET

103



**TYPICAL SECTION
LEVEL**



**TYPICAL SECTION
TILT**

JOINT ELEVATIONS		A	B	C	D
8" CURB	LEVEL	0.00'	0.36'	0.14'	0.36'
	TILT	0.76'	1.02'	0.69'	0.36'
6" CURB	LEVEL	0.00'	0.19'	(0.03')	0.19'
	TILT	0.76'	0.85'	0.52'	0.19'

() Indicates Above Level Line.

NOTES:

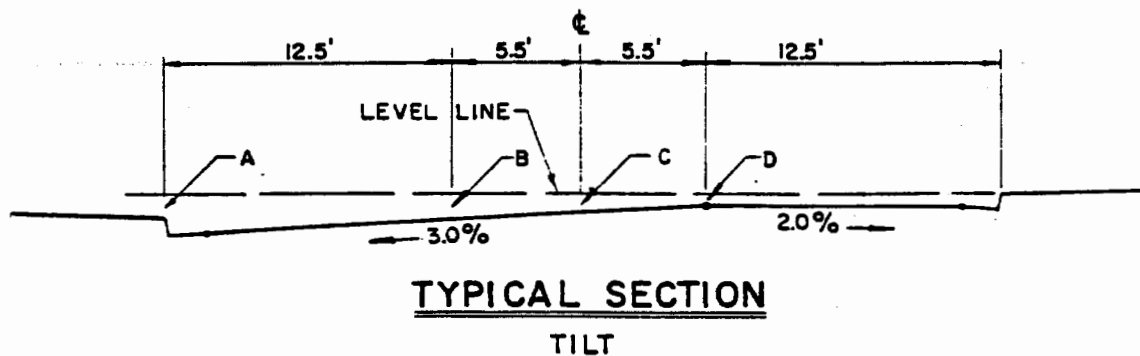
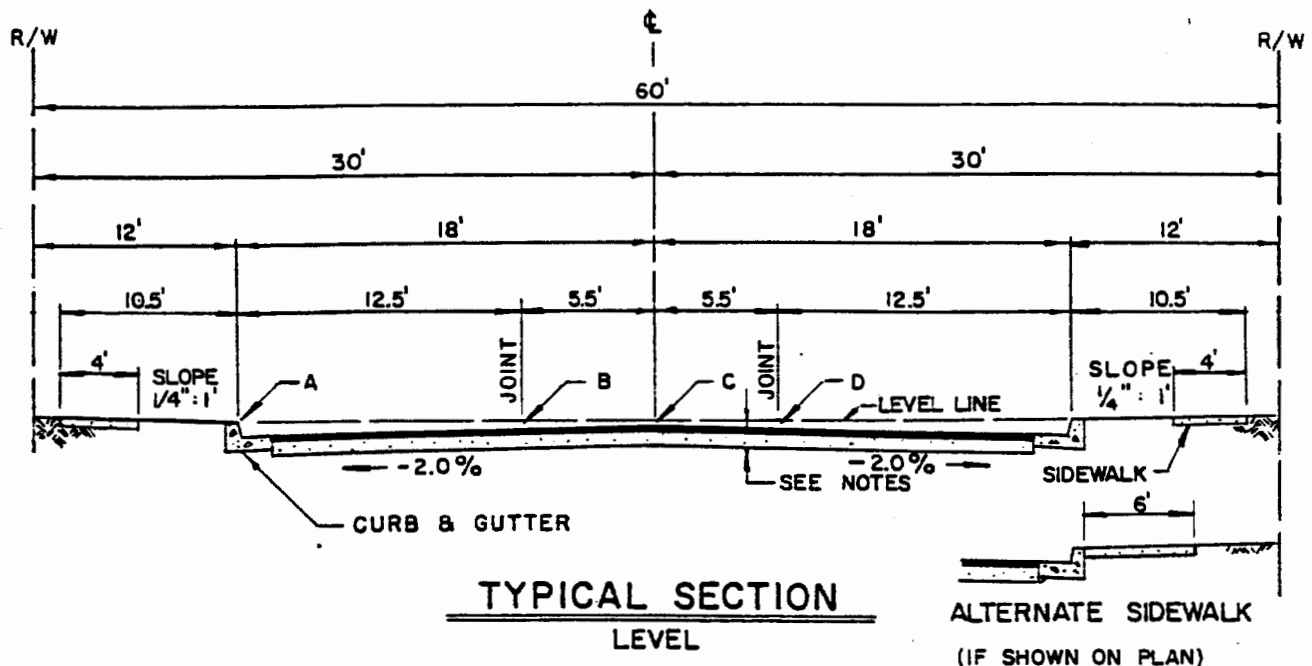
1. Structural Section Of Roadway Shall Be Determined From Soils Test, Traffic Index, Article IX Of The San Bernardino County Road Planning And Design Standards And Shall Be Approved By The County Transportation Department And So Indicated On Construction Plans.
2. Construction Outside R/W Will Require Slope Easements.

SAN BERNARDINO COUNTY TRANS. DEPT.	
REV. 3/1/94	KEN A. MILLER
	Director of Transportation

**INDUSTRIAL
COLLECTOR**

4-13-93 vhc

103b



		A	B	C	D
8" CURB	LEVEL	0.00'	0.33'	0.22'	0.33'
	TILT	0.44'	0.66'	0.50'	0.33'
6" CURB	LEVEL	0.00	0.16'	0.05'	0.16'
	TILT	0.44'	0.49'	0.33'	0.16'

NOTE

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS
4. WHEN PREPARING SUBGRADE FOR PAVING, CENTERLINE CROWN ON THE "LEVEL SECTION" SHALL BE RELOCATED EITHER LEFT OR RIGHT 0.50' TO MATCH CROWN BREAK IN PAVING MACHINE.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

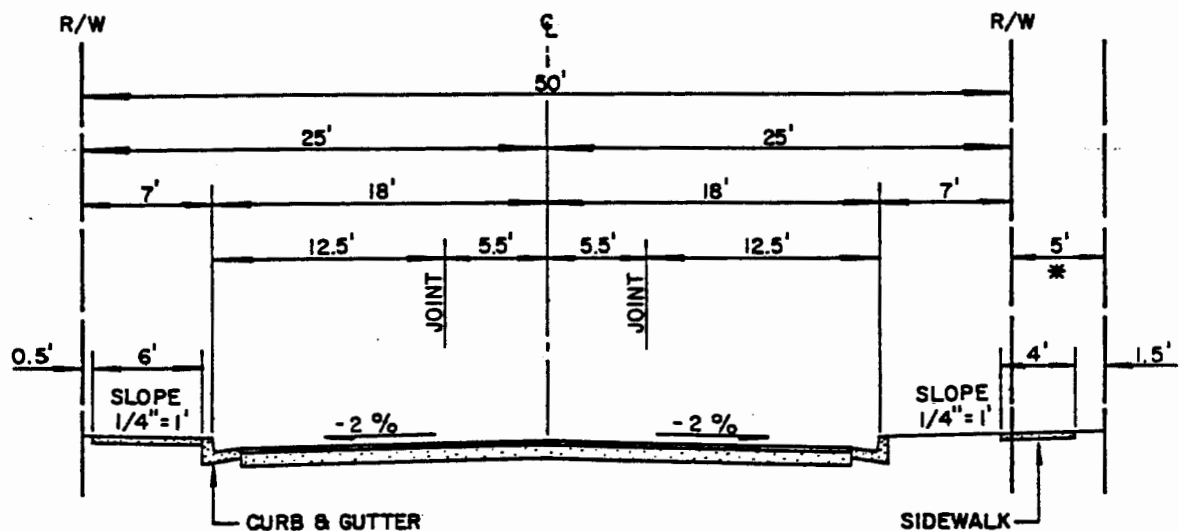
DATE: F.V.C. 9-65

Rev. 5-74

John R. Shone
COUNTY HIGHWAY ENGINEER

LOCAL STREET

104



TYPICAL SECTION

NOTES:

1. THIS TYPICAL SECTION SHALL BE USED ONLY ON LOCAL STREETS SUCH AS CUL-DE-SACS, LOOPS AND STREETS THAT DO NOT CARRY THROUGH TYPE TRAFFIC. THE USE SHALL BE LIMITED TO STREETS WHICH ARE PROJECTED TO CARRY LESS THAN 1000 ADT UPON ULTIMATE DEVELOPMENT OF THE AREA.
2. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOIL TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
3. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO. 104.
- *. 5' WIDE SIDEWALK AND PUBLIC UTILITIES EASEMENT AT THE OPTION OF THE OWNER, THIS AREA MAY BE DEDICATED AS ROAD RIGHT-OF-WAY.

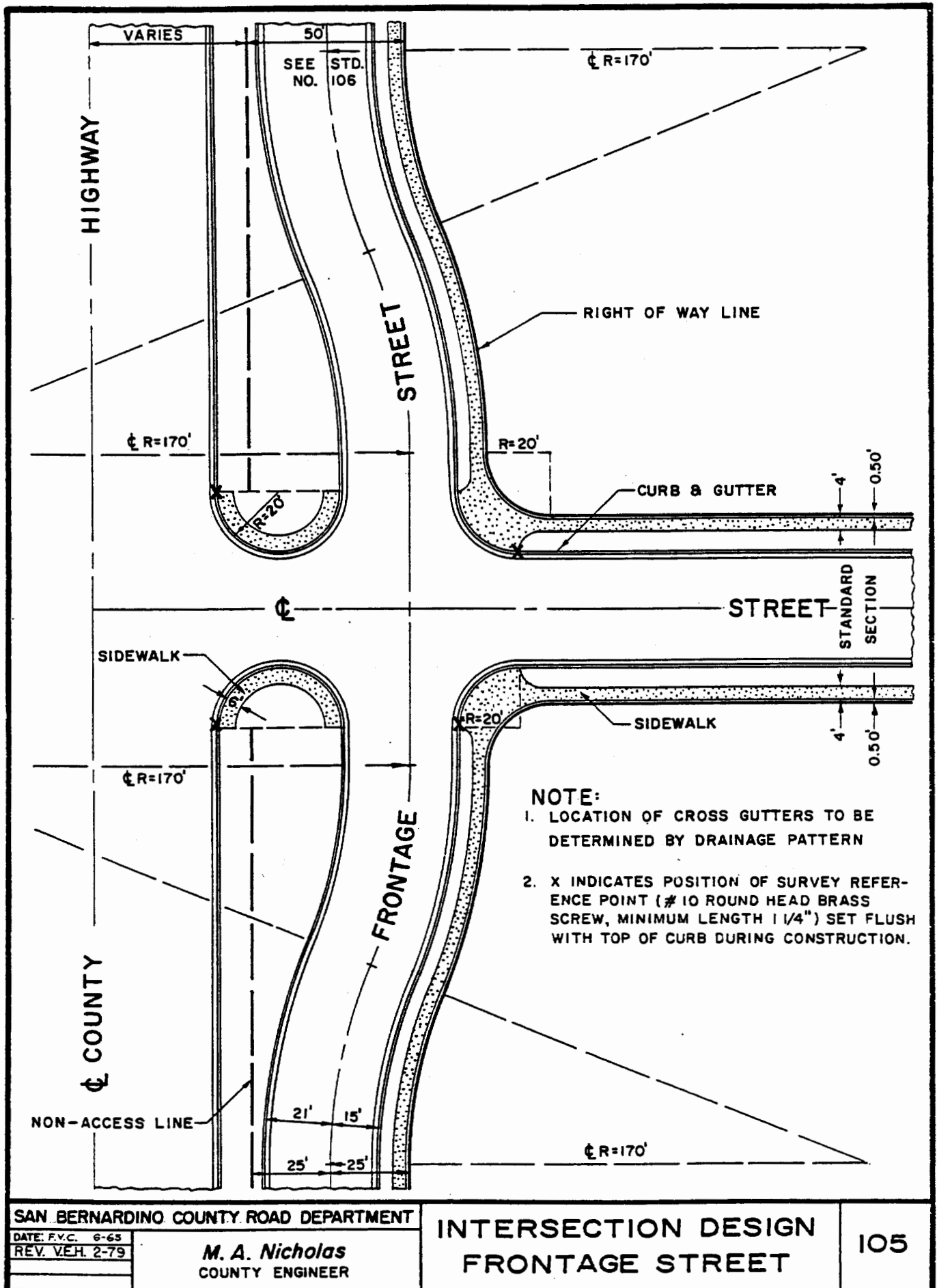
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

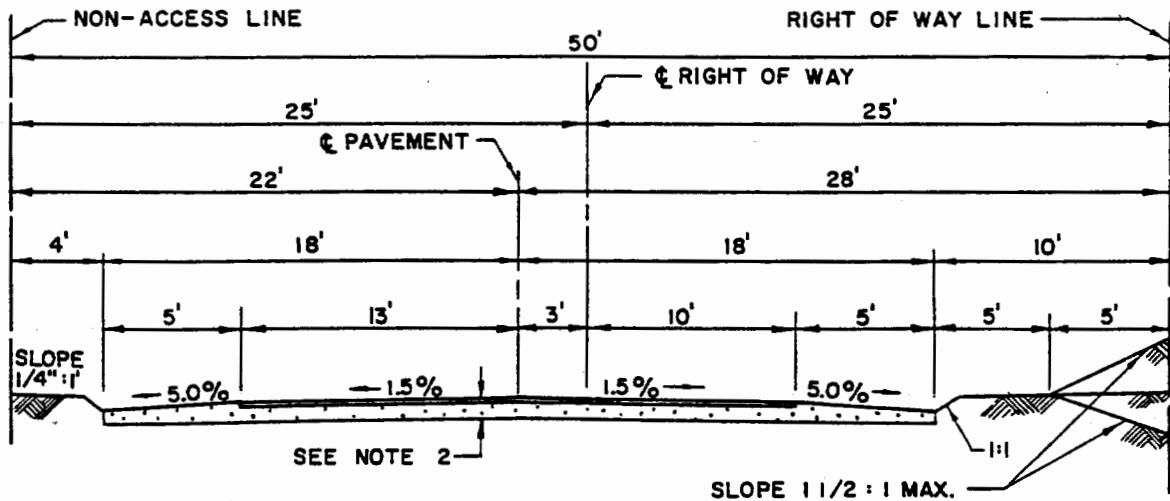
DATE: 100 12 '81

JOHN R. SHONE
DIRECTOR OF TRANSPORTATION

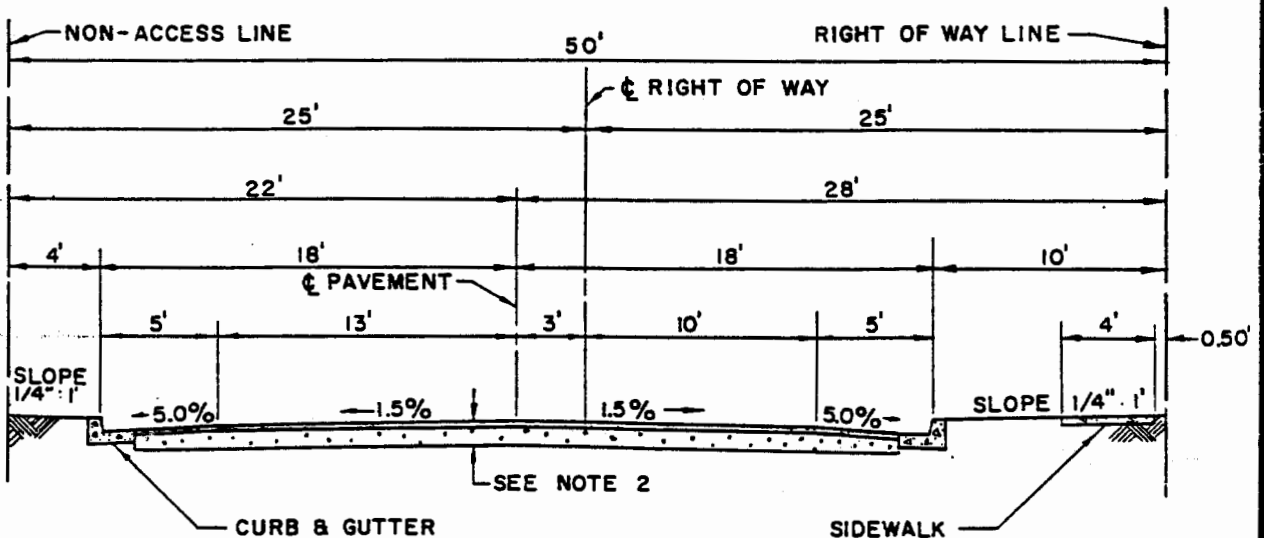
LOCAL STREET
(LESS THAN 1000 ADT)

104
A





TYPICAL SECTION - FRONTAGE ROAD DESERT, RESIDENTIAL, LOW DENSITY



TYPICAL SECTION - FRONTAGE STREET RESIDENTIAL, COMMERCIAL, INDUSTRIAL

NOTES:

1. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
2. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
3. TILT SECTIONS TO CONFORM TO LOCAL STREET SECTION, STD. NO. 104 OR TILT SECTION OF STD. NO. 100.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.Y.C. 4-65

M. A. Nicholas
COUNTY ENGINEER

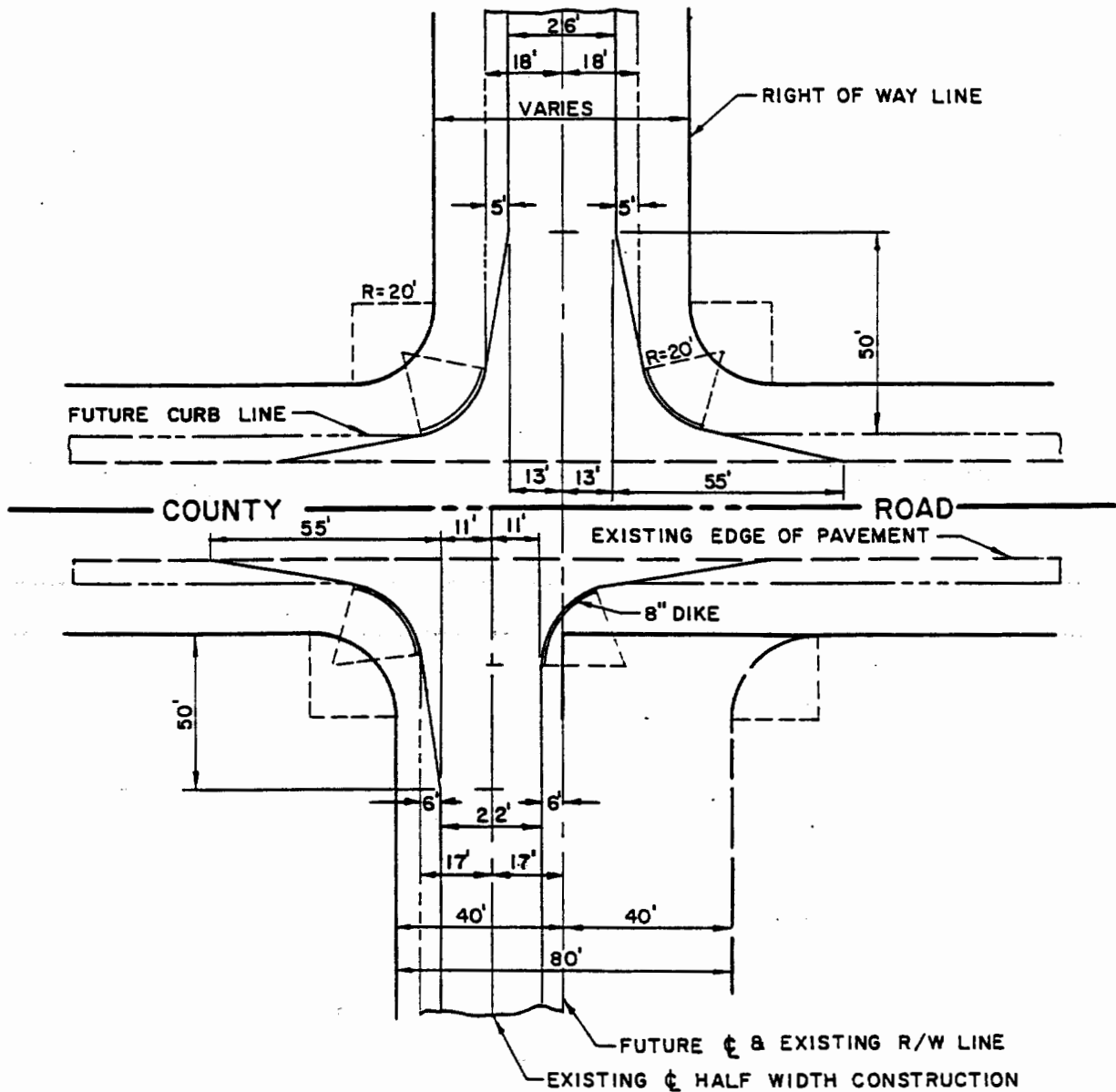
FRONTAGE
ROAD AND STREET

106



106a

FULL WIDTH CONSTRUCTION



HALF WIDTH CONSTRUCTION

NOTES :

1. SEE STANDARD NO. 112 FOR ROADWAY SECTIONS.

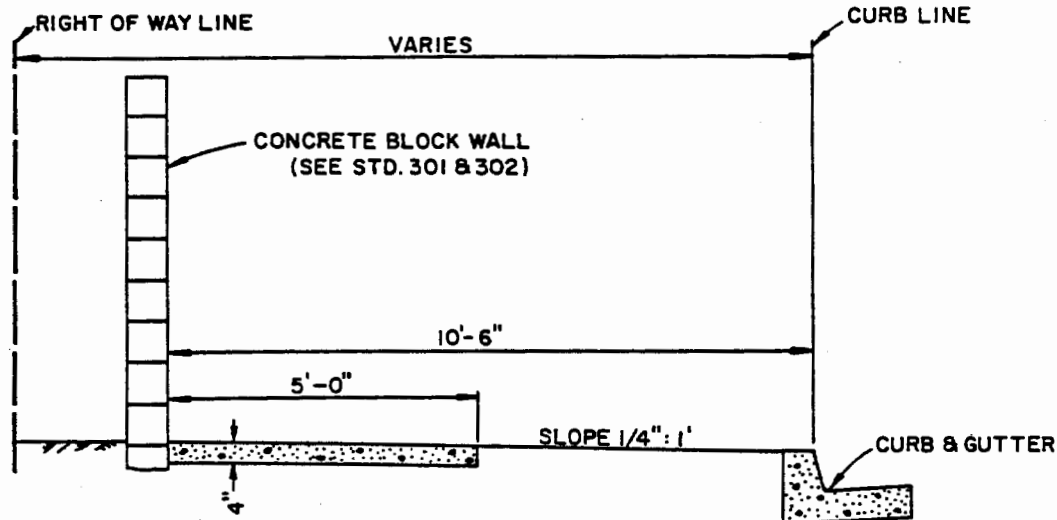
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.1.65

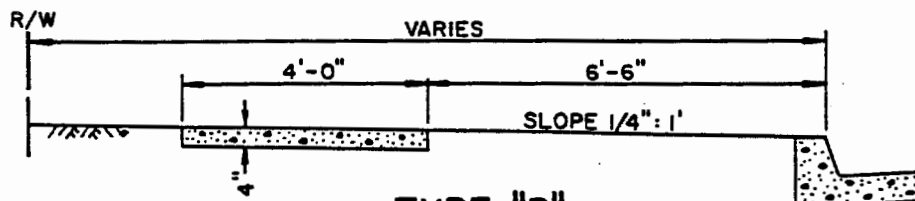
M. A. Nicholas
COUNTY ENGINEER

INTERSECTION DESIGN
DESERT ROAD

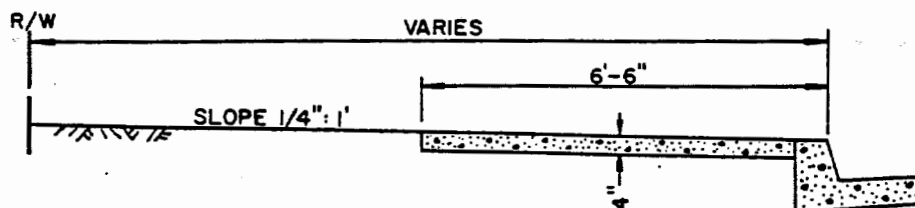
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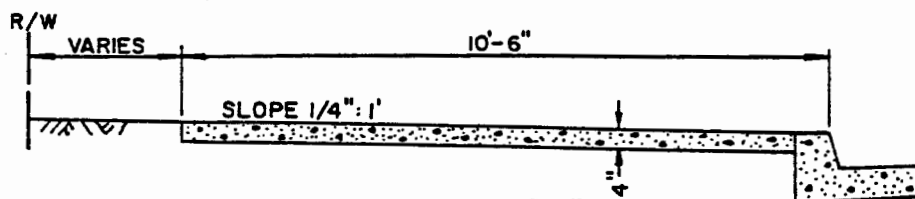
TYPE "A"



TYPE "B"



TYPE "C"



TYPE "D"

1. TYPE "C" SIDEWALKS ADJACENT TO CURB SHALL ONLY BE USED ON LOCAL AND COLLECTOR STREETS AND ONLY UPON APPROVAL OF THE TRANSPORTATION DEPT.
2. SIDEWALK SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED ON 10' SPACING.
4. SCORING SIDEWALK WILL BE PERMITTED.
5. IN EXPANSIVE SOIL AREAS, REFER TO SECTION 73 OF THE COUNTY SPECIFICATIONS.

San Bernardino County Transportation Department

APP. MAR. 1975

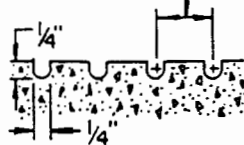
John R. Shone

DIRECTOR OF TRANSPORTATION

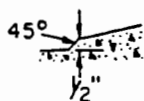
SIDEWALK

109

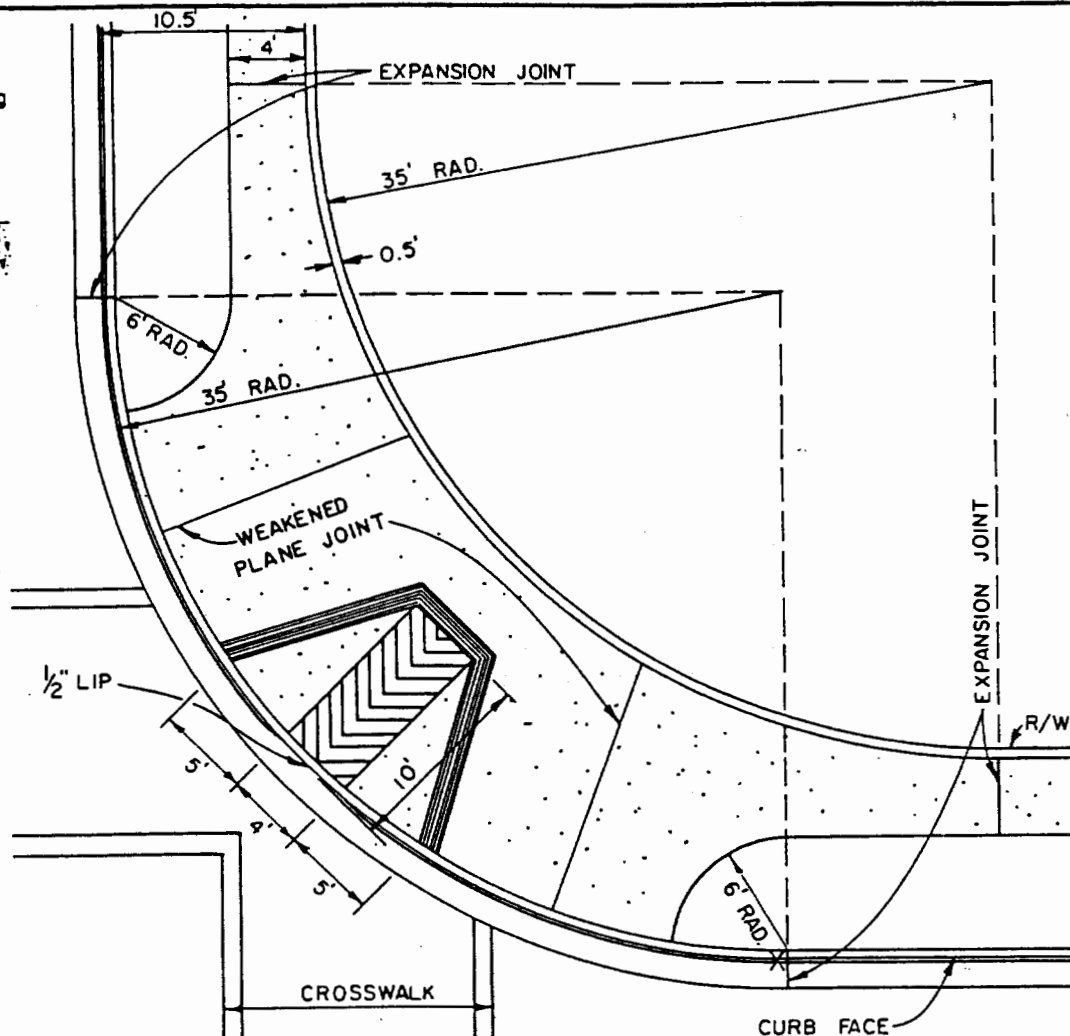
Approx. $\frac{3}{4}$ " except
approx. $\frac{1}{2}$ " on sloping
portion of ramp



GROOVING
DETAIL



LIP DETAIL



NOTES:

1. Ramp slope shall be 8.33% maximum.
2. The ramp shall have a 12" wide border with $\frac{1}{4}$ " grooves approximately $\frac{3}{4}$ " o.c. See grooving detail.
3. When ramp is located in center of curb return, it shall be grooved in a herringbone pattern with $\frac{1}{4}$ " grooves approximately $1\frac{1}{2}$ " o.c. See grooving detail. Grooves should be aligned parallel to crosswalk stripes to direct blind pedestrians into appropriate crosswalk. When ramp is not located in center of curb return, the surface shall have a transverse broomed surface texture rougher than the surrounding sidewalk.
4. Ramps shall be built and finished so that there are no abrupt changes in elevation or angle of slope.
5. Sidewalk ramps are required at all corners where curbs and/or sidewalks are to be constructed or reconstructed and shall be as shown on the improvement plans.
6. Modifications to location or dimensions of ramp shall require approval of County Engineer and be shown on approved plans.
7. Thickness of concrete: 4 in. minimum.
8. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length $1\frac{1}{4}$ ") set flush with top of curb during construction.
9. Use when one or both intersecting streets is a Secondary Highway or wider.

San Bernardino County Transportation Department

REV. JAN. 88

Ken A. Miller

DIRECTOR OF TRANSPORTATION

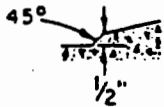
SIDEWALK RAMP

110

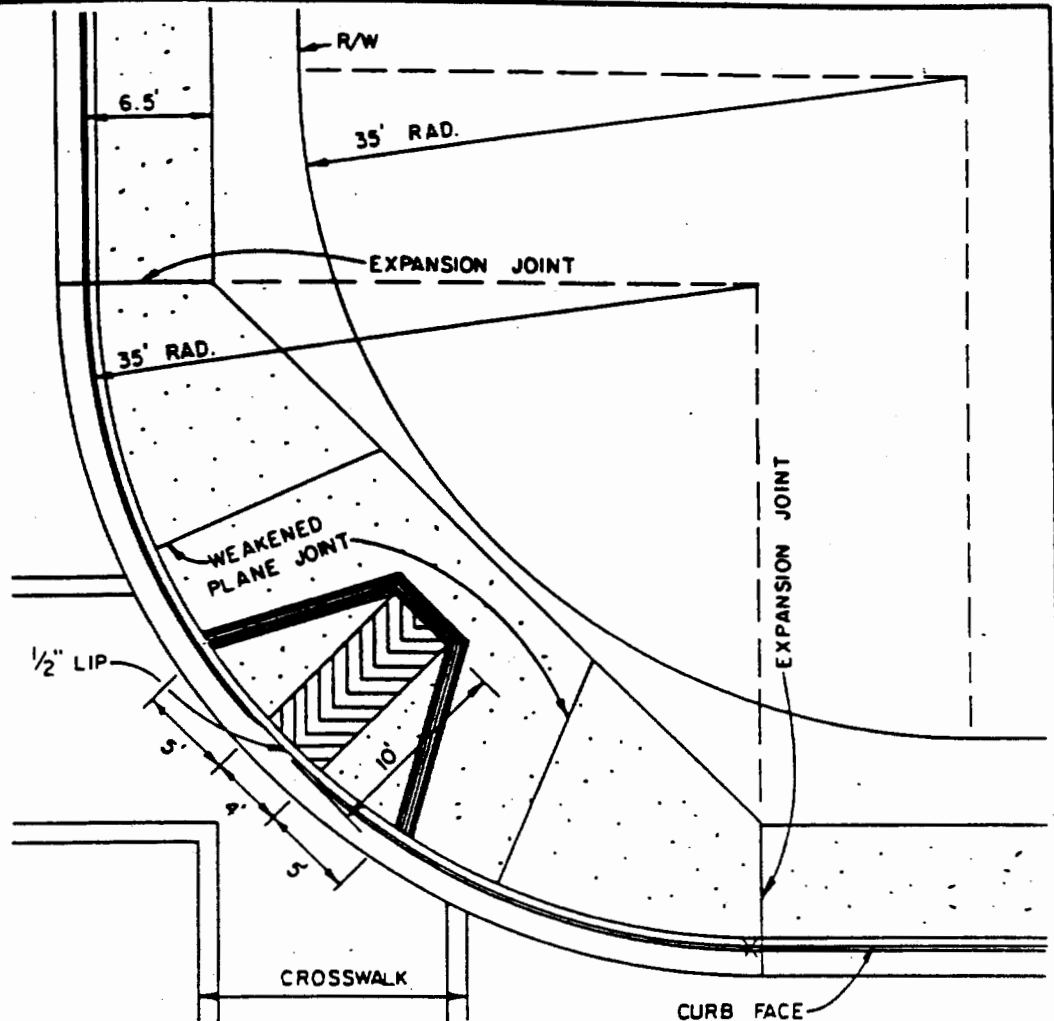
Approx. $\frac{3}{4}$ " except
approx. $\frac{1}{2}$ " on sloping
portion of ramp



GROOVING
DETAIL



LIP DETAIL



NOTES:

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2. The ramp shall have a 12" wide border with $\frac{1}{4}$ " grooves approximately $\frac{3}{4}$ " o.c. See grooving detail.
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7. Thickness of concrete: 4 in. minimum.
8. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length $1\frac{1}{4}$ ") set flush with top of curb during construction.
9. Use when one or both intersecting streets is a Secondary Highway or wider.

San Bernardino County Transportation Department

REV. JAN 88

Ken A. Miller

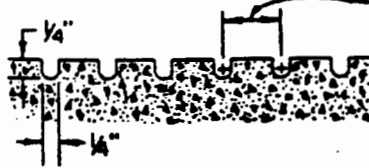
DIRECTOR OF TRANSPORTATION

SIDEWALK RAMP

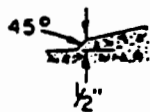
110
A

Approx. $\frac{3}{4}$ " except approx.

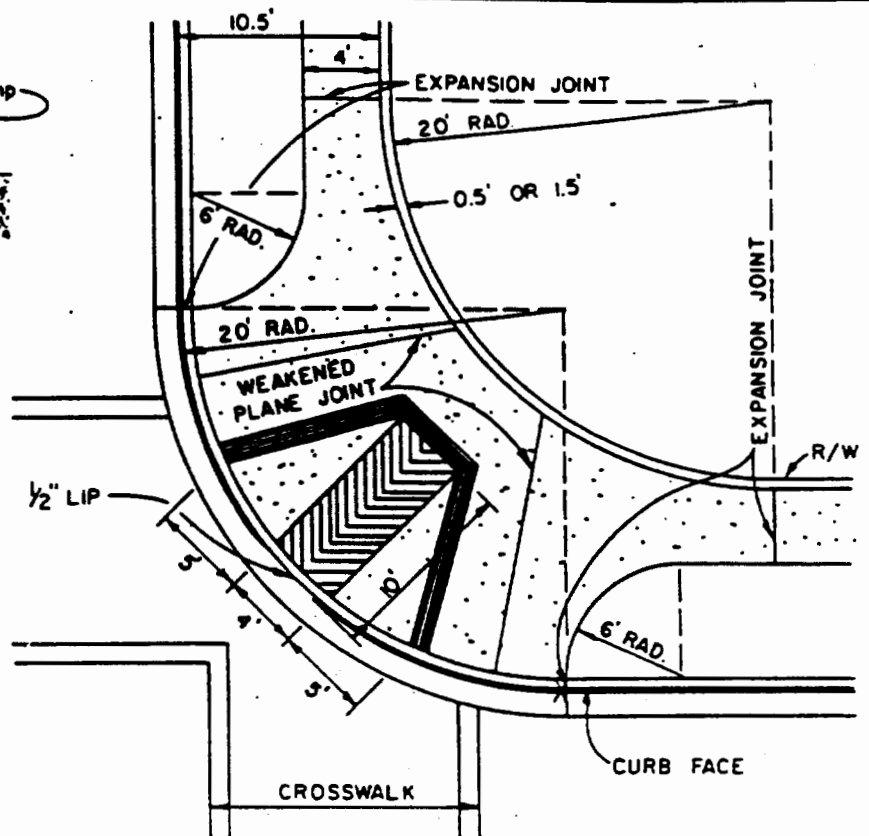
$1\frac{1}{2}$ " on sloping portion of ramp



GROOVING DETAIL



LIP DETAIL



NOTES:

1. Ramp slope shall be 8.33% maximum.
2. The ramp shall have a 12" wide border with $\frac{1}{4}$ " grooves approximately $\frac{3}{4}$ " o.c. See grooving detail.
3. When ramp is located in center of curb return, it shall be grooved in a herringbone pattern with $\frac{1}{4}$ " grooves approximately $1\frac{1}{2}$ " o.c. See grooving detail. Grooves should be aligned parallel to crosswalk stripes to direct blind pedestrians into appropriate crosswalk. When ramp is not located in center of curb return, the surface shall have a transverse broomed surface texture rougher than the surrounding sidewalk.
4. Ramps shall be built and finished so that there are no abrupt changes in elevation or angle of slope.
5. Sidewalk ramps are required at all corners where curbs and/or sidewalks are to be constructed or reconstructed and shall be as shown on the improvement plans.
6. Modifications to location or dimensions of ramp shall require approval of County Engineer and be shown on approved plans.
7. Thickness of concrete: 4 in. minimum.
8. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length $1\frac{1}{4}$ ") set flush with top of curb during construction.
9. Use when both intersecting streets are Collector Streets or narrower.

San Bernardino County Transportation Department

REV. JAN 88

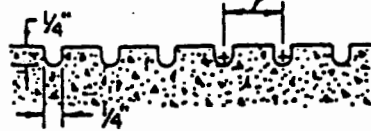
Ken A. Miller

DIRECTOR OF TRANSPORTATION

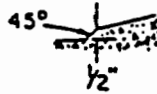
SIDEWALK RAMP

110
B

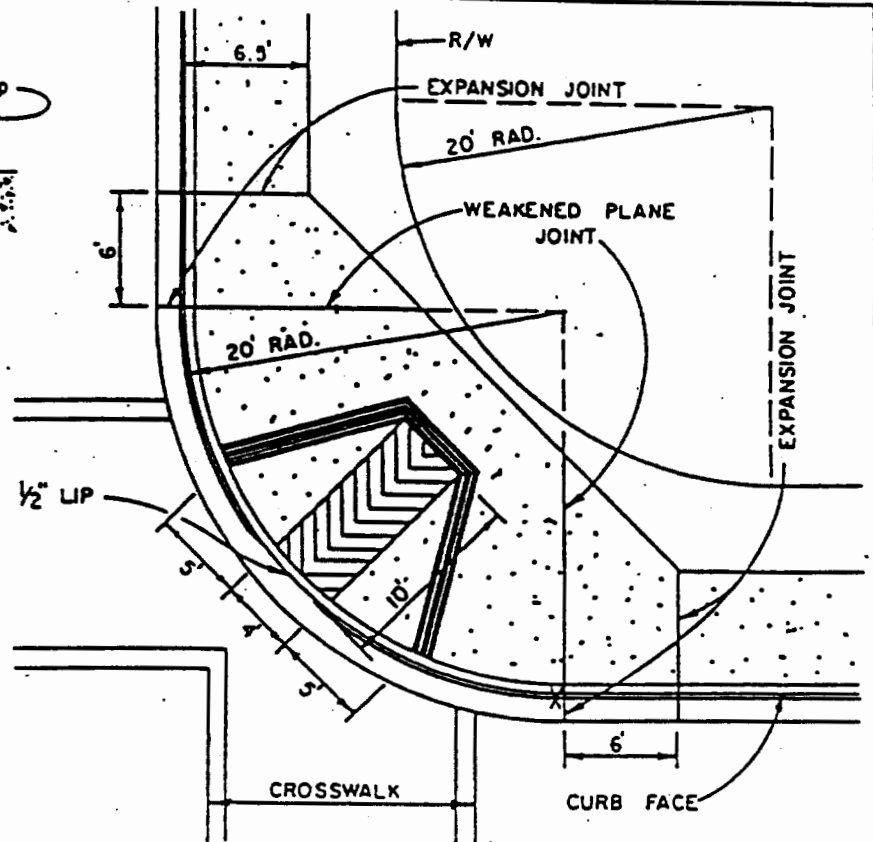
Approx. $\frac{3}{4}$ " except approx.
 $1\frac{1}{2}$ " on sloping portion of ramp



GROOVING DETAIL



LIP DETAIL



NOTES:

1. Ramp slope shall be 8.33% maximum.
2. The ramp shall have a 12" wide border with $\frac{1}{4}$ " grooves approximately $\frac{3}{4}$ " o.c. See grooving detail.
3. When ramp is located in center of curb return, it shall be grooved in a herringbone pattern with $\frac{1}{4}$ " grooves approximately $1\frac{1}{2}$ " o.c. See grooving detail. Grooves should be aligned parallel to crosswalk stripes to direct blind pedestrians into appropriate crosswalk. When ramp is not located in center of curb return, the surface shall have a transverse broomed surface texture rougher than the surrounding sidewalk.
4. Ramps shall be built and finished so that there are no abrupt changes in elevation or angle of slope.
5. Sidewalk ramps are required at all corners where curbs and/or sidewalks are to be constructed or reconstructed and shall be as shown on the improvement plans.
6. Modifications to location or dimensions of ramp shall require approval of County Engineer and be shown on approved plans.
7. Thickness of concrete: 4 in. minimum.
8. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length $1\frac{1}{4}$ ") set flush with top of curb during construction.
9. Use when both intersecting streets are Collector Streets or narrower. When one street is a cul-de-sac (Std. No. 120), increase R/W radius to 27'.

San Bernardino County Transportation Department

REV. 7-90

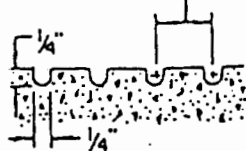
Ken A. Miller

DIRECTOR OF TRANSPORTATION

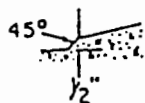
SIDEWALK RAMP

110
C

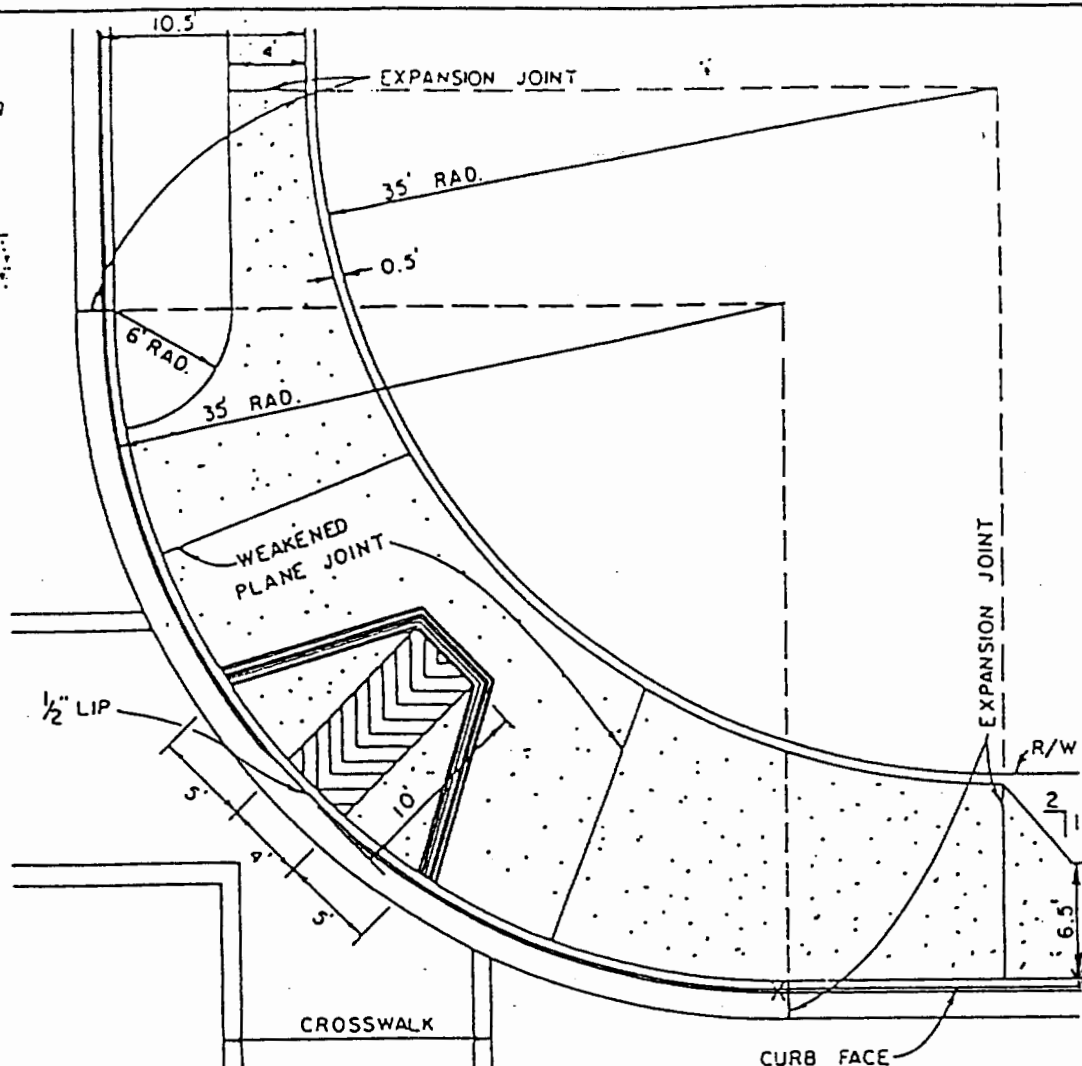
Approx. $\frac{3}{4}$ " except
approx. $1\frac{1}{2}$ " on sloping
portion of ramp



GROOVING
DETAIL



LIP DETAIL



NOTES:

1. Ramp slope shall be 8.33% maximum.
2. The ramp shall have a 12" wide border with $\frac{1}{4}$ " grooves approximately $\frac{3}{4}$ " o.c. See grooving detail.
3. When ramp is located in center of curb return, it shall be grooved in a herringbone pattern with $\frac{1}{4}$ " grooves approximately $1\frac{1}{2}$ " o.c. See grooving detail. Grooves should be aligned parallel to crosswalk stripes to direct blind pedestrians into appropriate crosswalk. When ramp is not located in center of curb return, the surface shall have a transverse broomed surface texture rougher than the surrounding sidewalk.
4. Ramps shall be built and finished so that there are no abrupt changes in elevation or angle of slope.
5. Sidewalk ramps are required at all corners where curbs and/or sidewalks are to be constructed or reconstructed and shall be as shown on the improvement plans.
6. Modifications to location or dimensions of ramp shall require approval of County Engineer and be shown on approved plans.
7. Thickness of concrete: 4 in. minimum.
8. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length $1\frac{1}{4}$ ") set flush with top of curb during construction.
9. Use when transitioning between different sidewalk locations.

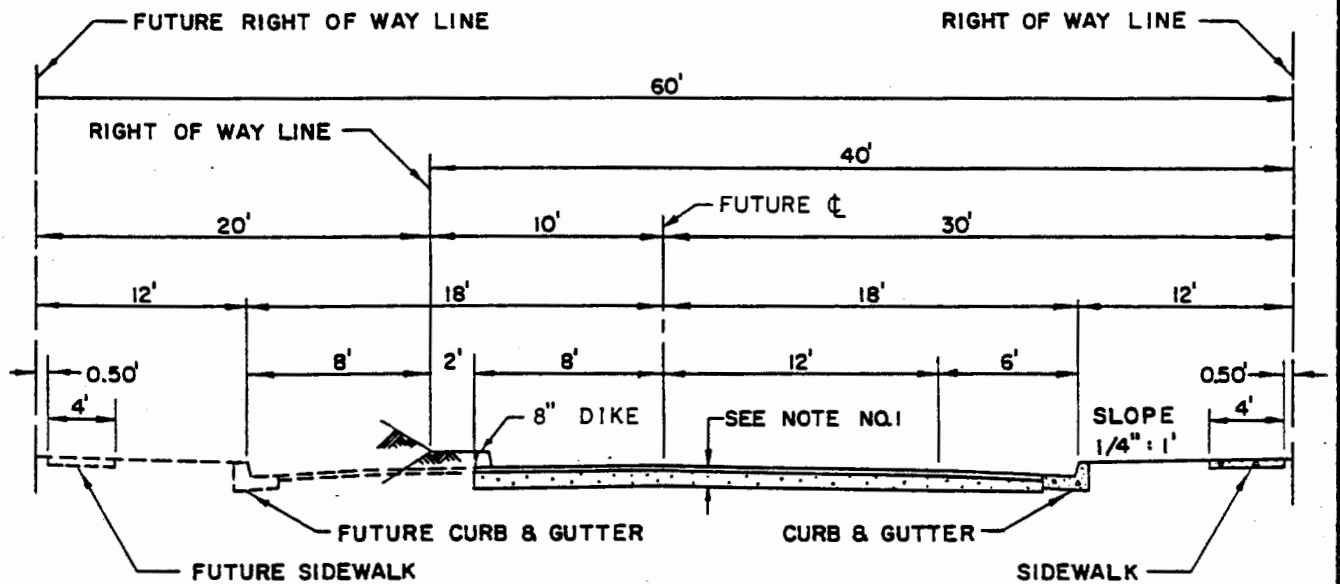
San Bernardino County Transportation Department

20 8.89

Ken A. Miller
DIRECTOR OF TRANSPORTATION

SIDEWALK RAMP

110
D



TYPICAL SECTION

NOTES

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN $1\frac{1}{2}:1$.
3. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS
4. ALL SECTIONS SHALL CONFORM TO STANDARD NO. 104.
5. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

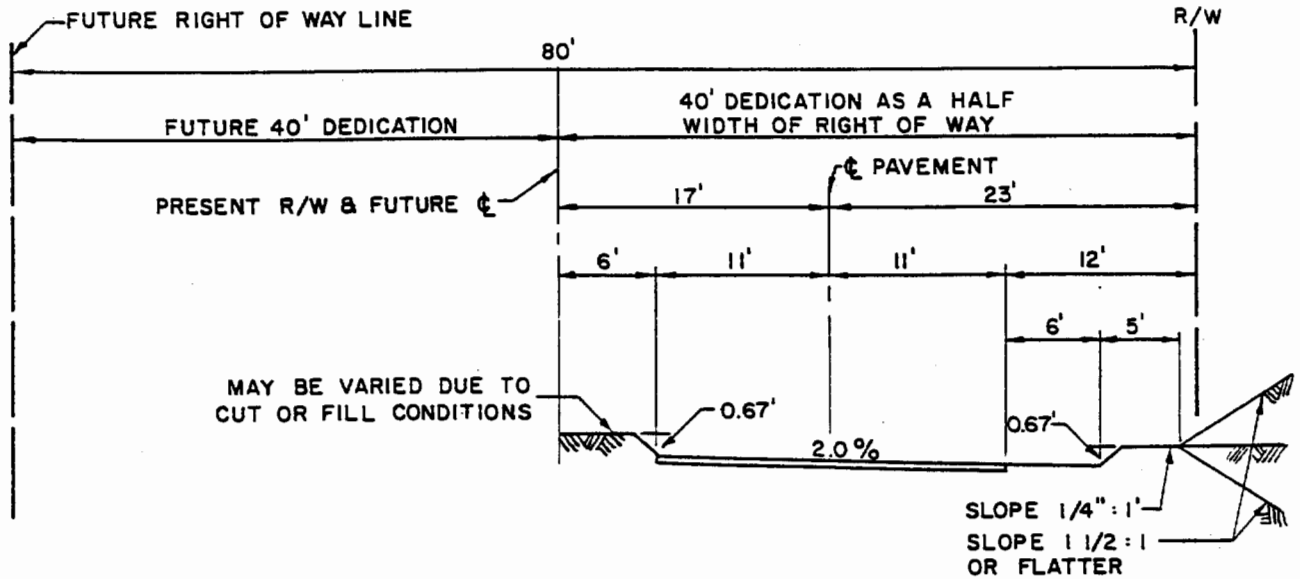
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: *P.V.C. 5-65*

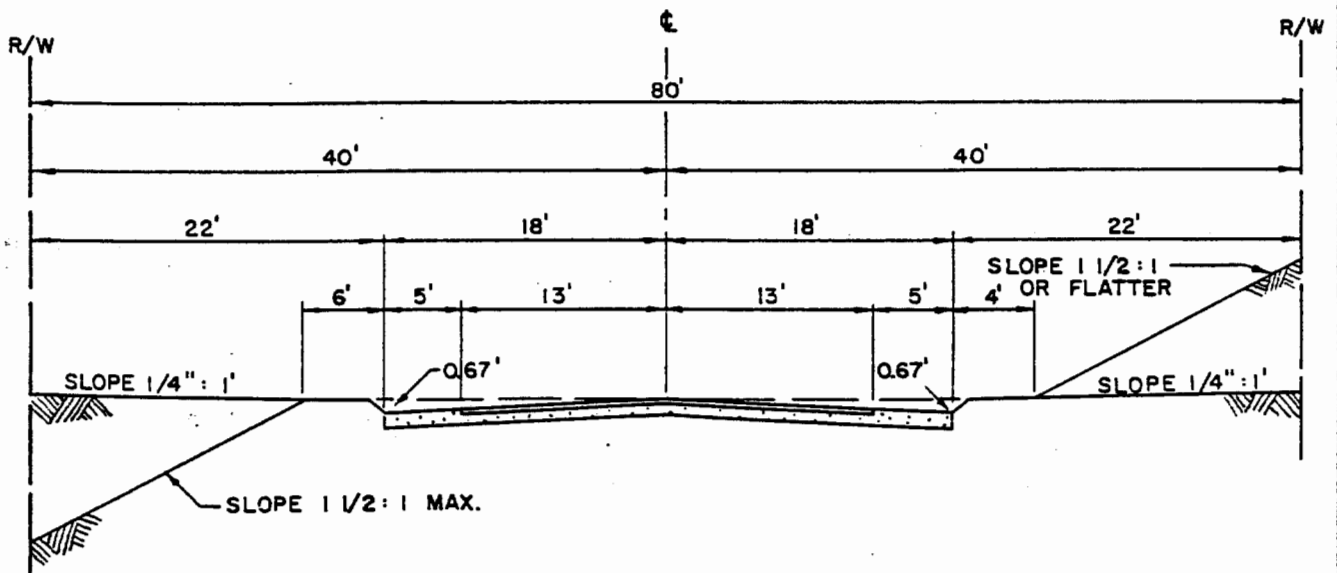
M. A. Nicholas
COUNTY ENGINEER

HALF WIDTH
LOCAL STREET

111



**TYPICAL SECTION
HALF WIDTH CONSTRUCTION**



**TYPICAL SECTION
ULTIMATE WIDTH**

NOTES:

1. FUTURE DEVELOPER TO RECONSTRUCT PAVEMENT TO STANDARD SECTION ON CENTERLINE OF FULL WIDTH RIGHT OF WAY. ROAD TO BE PAVED OR GRADED IN ACCORDANCE WITH STANDARD NO. 113 FOR ALIGNMENT AND IMPROVEMENT, AND STANDARD NUMBER 107 FOR INTERSECTION DESIGN.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

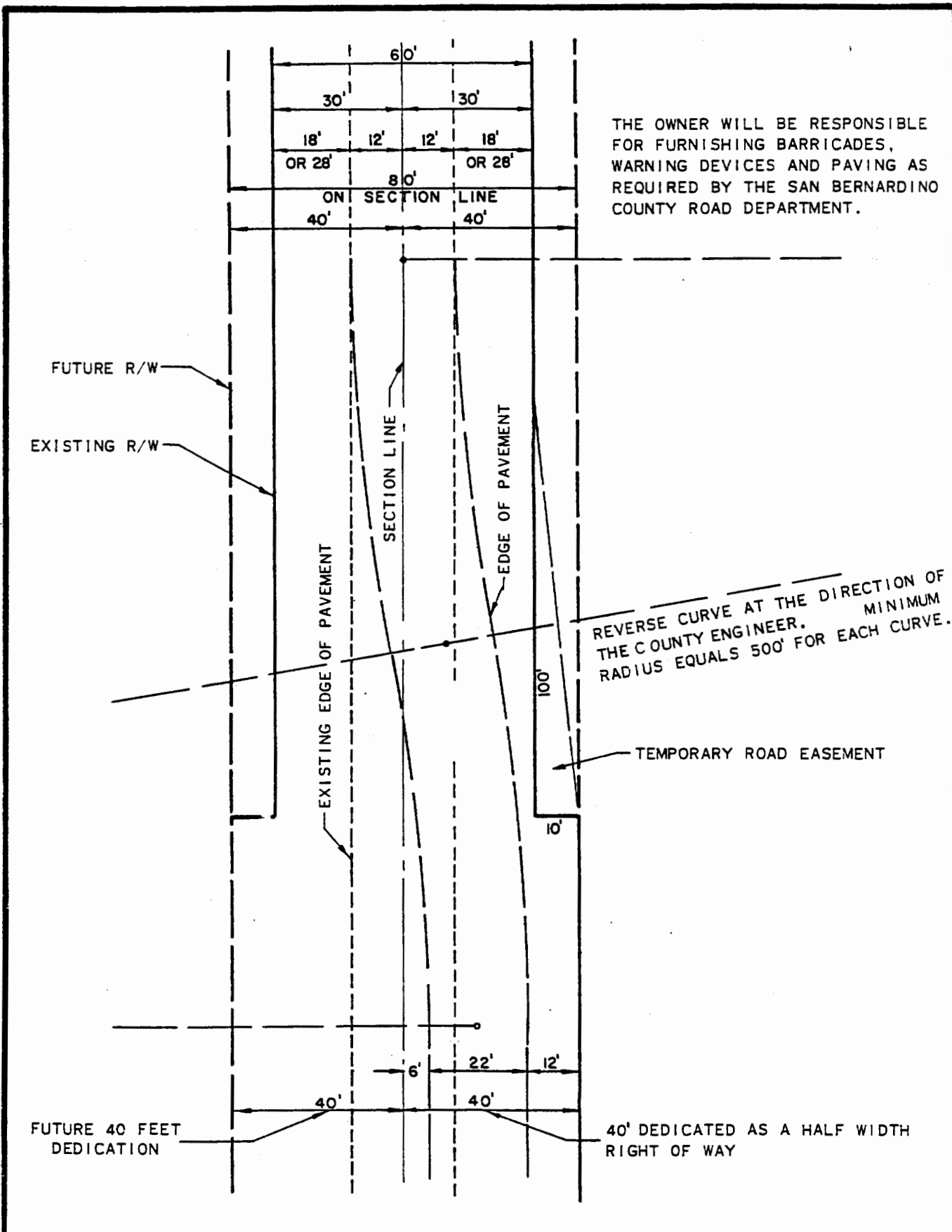
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: D.V.C. 5/25

M. A. Nicholas
COUNTY ENGINEER

**HALF WIDTH
DESERT ROAD**

112



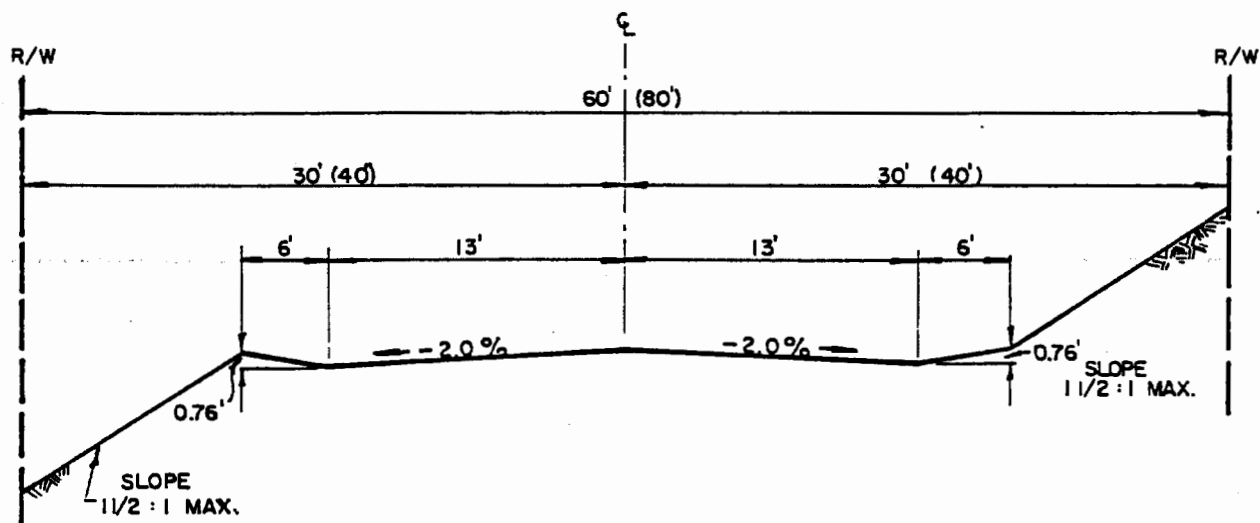
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 2-1-65

M. A. Nicholas
COUNTY ENGINEER

HALF WIDTH
DESERT ROAD

113



TYPICAL SECTION

NOTES:

1. DRAINAGE IMPROVEMENTS TO BE PLACED WHERE REQUIRED BY PLAN.
2. EMBANKMENTS PLACED WITHIN AREA OF THE TRAVELLED WAY SHALL PROVIDE A STABLE ROADWAY.
3. PLANS SHALL INDICATE AREAS WHERE IMPORTED MATERIAL IS REQUIRED TO PROVIDE A STABLE ROADWAY.
4. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

Rev. 5-74

John R. Shone
COUNTY HIGHWAY ENGINEER

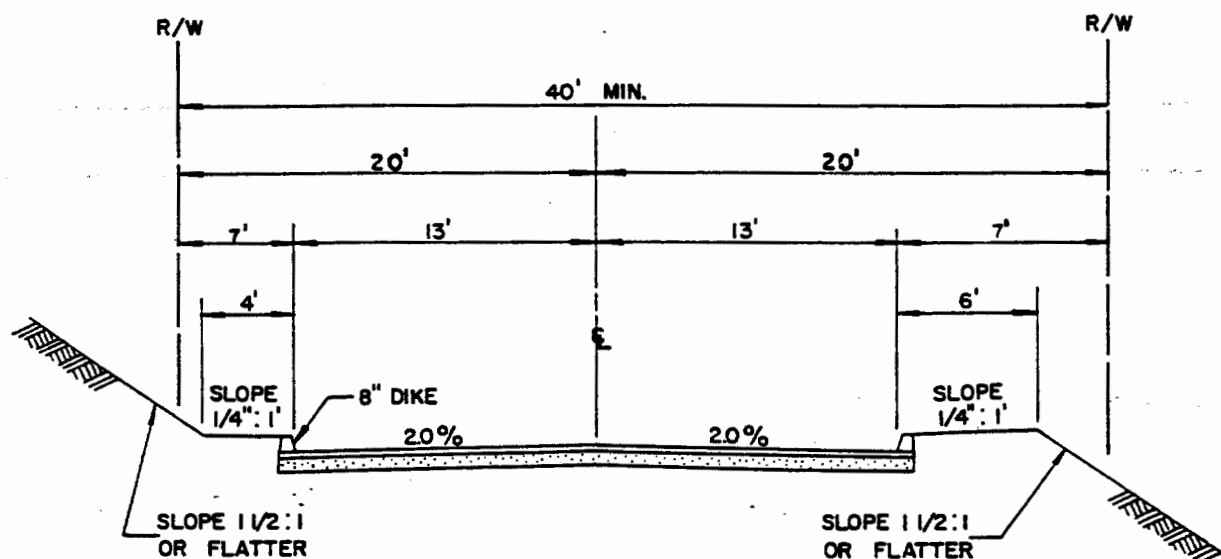
GRADED ROAD

114



1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

114a



TYPICAL SECTION MOUNTAIN AREAS

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. SLOPE REQUIREMENT MAY BE VARIED BY SUBMISSION OF SOILS REPORT.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

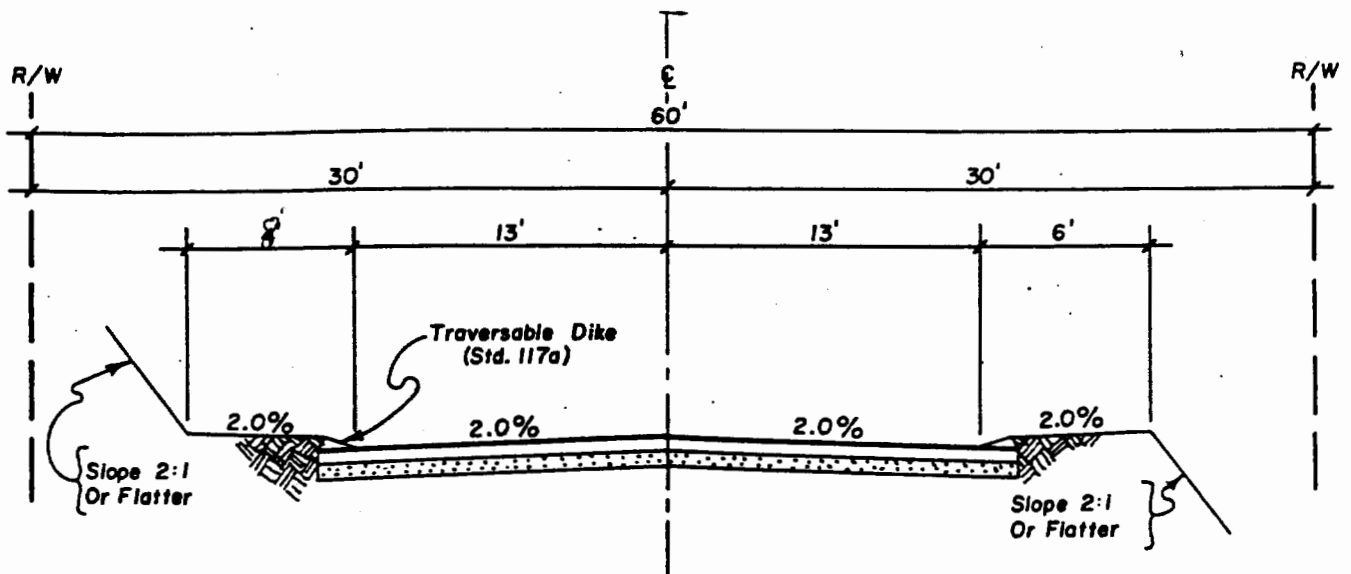
DATE: J.E.M. 9-65

PR.8-80

M. A. Nicholas
COUNTY ENGINEER

PAVED ROAD

114b



TYPICAL SECTION

HILLSIDE

NOTES:

1. Structural Section Of Roadway Shall Be Determined From Soils Test And So Indicated On Construction Plans.
2. Construction Outside R/W Line Shall Require Slope Easements.
3. Slope Requirement May Be Varied By Submission Of Soils Report.

SAN BERNARDINO COUNTY TRANS. DEPT.

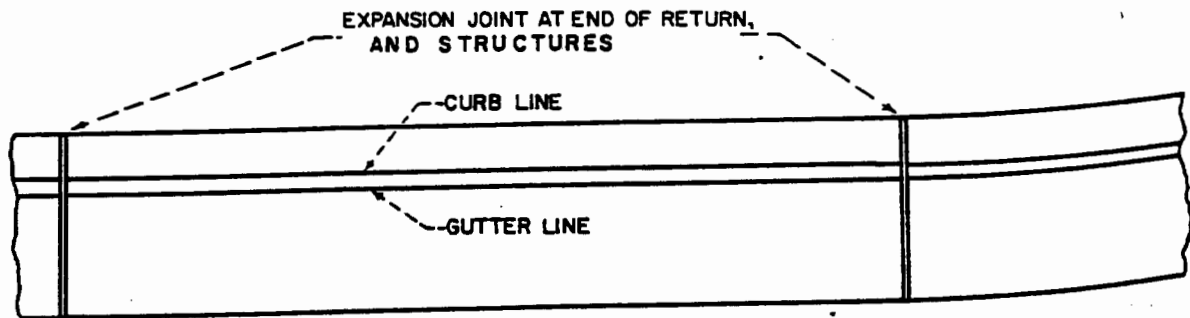
REV. 3/1/94

KEN A. MILLER
Director of Transportation

HILLSIDE
PAVED ROAD

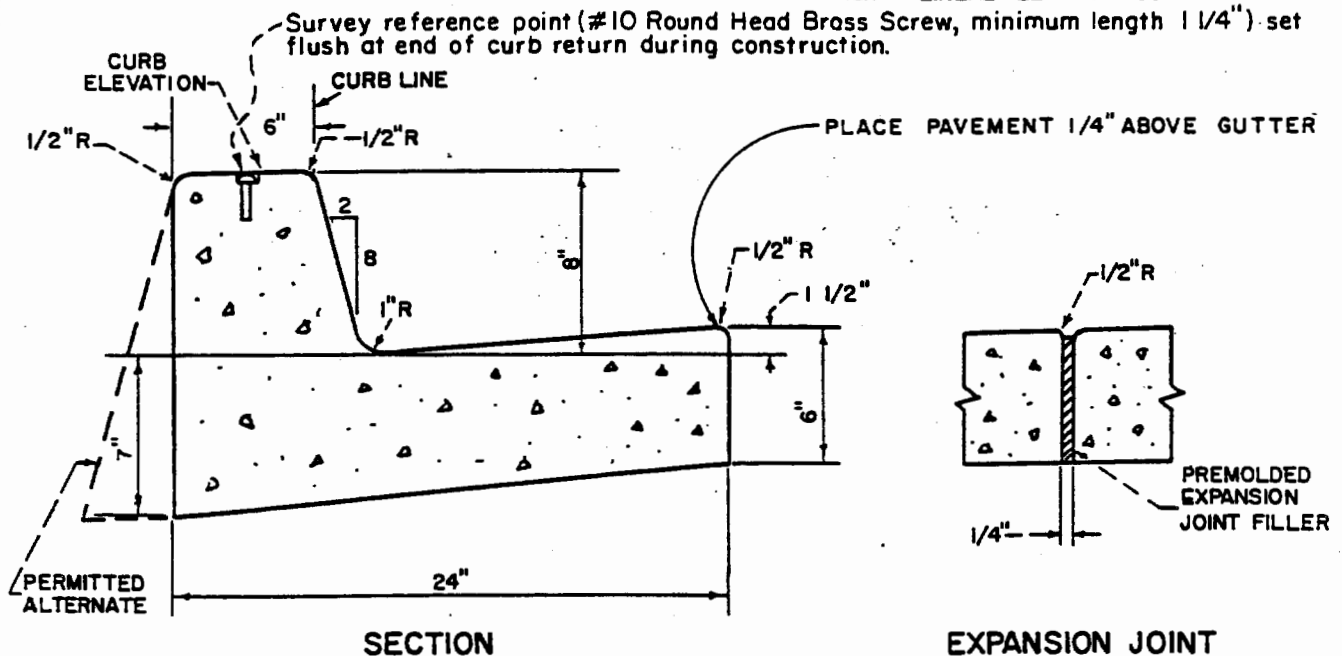
3-31-93 vhc

114c



PLAN

0.0535 CUBIC YARDS PER LINEAL FOOT.
18.7 LINEAL FEET PER CUBIC YARD.



NOTES:

1. CURB AND GUTTER SHALL BE CONSTRUCTED MONOLITHICALLY OF CLASS "B" CONCRETE.
2. WIDTHS OF STANDARD STREET SECTIONS SHOWN ON PLANS ARE TO CURB LINE UNLESS OTHERWISE INDICATED.
3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10-FOOT INTERVALS, EXCEPT THAT THE INTERVAL SHALL BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.
4. CURING COMPOUND SHALL BE SPRAYED UNIFORMLY ON EXPOSED SURFACES.
5. WHEN CURB AND GUTTER IS PLACED BY AN EXTRUSION MACHINE MINOR FINISHING MAY BE DONE TO PROVIDE AN ACCEPTABLE FINISH AND THE WEAKENED PLANE JOINTS MAY BE SAWCUT.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

REV. V.E.H. 3-74

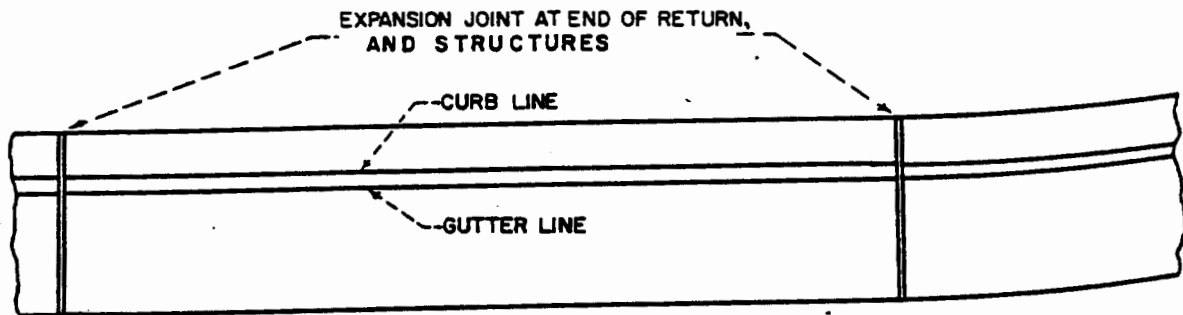
REV. V.E.H. 7-76

Rev. V.E.H. 2-79

John R. Shone
COUNTY HIGHWAY ENGINEER

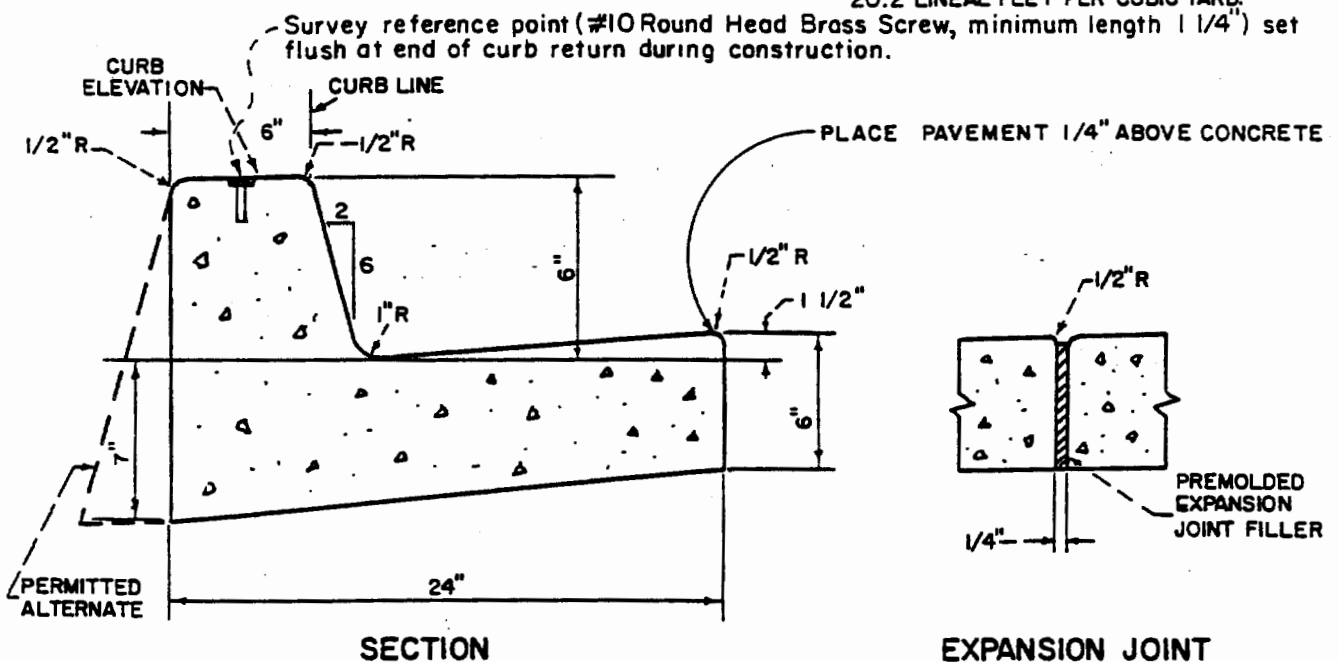
CURB 8" AND GUTTER

115



PLAN

0.0495 CUBIC YARDS PER LINEAL FOOT.
20.2 LINEAL FEET PER CUBIC YARD.



NOTES:

1. 6" CURB SHALL ONLY BE USED ON LOCAL STREETS WHERE DRAINAGE PERMITS.
2. CURB AND GUTTER SHALL BE CONSTRUCTED MONOLITHICALLY OF CLASS "B" CONCRETE.
3. WIDTHS OF STANDARD STREET SECTIONS SHOWN ON PLANS ARE TO CURB LINE UNLESS OTHERWISE INDICATED.
4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10-FOOT INTERVALS, EXCEPT THAT THE INTERVAL SHALL BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.
5. CURING COMPOUND SHALL BE SPRAYED UNIFORMLY ON EXPOSED SURFACES.
6. WHEN CURB AND GUTTER IS PLACED BY AN EXTRUSION MACHINE MINOR FINISHING MAY BE DONE TO PROVIDE AN ACCEPTABLE FINISH AND THE WEAKENED PLANE JOINTS MAY BE SAWCUT.

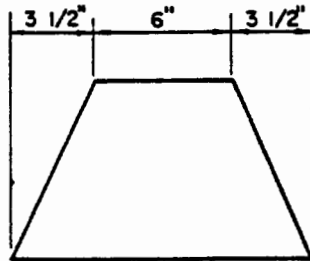
SAN BERNARDINO COUNTY TRANS. DEPARTMENT

APPR. 3-75
Rev. VEH 2-79

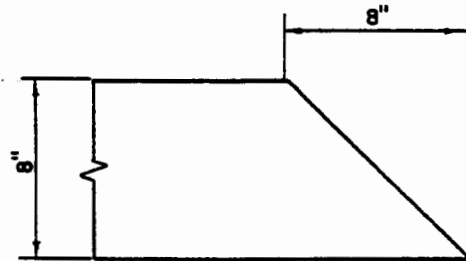
John R. Shone
DIRECTOR OF TRANSPORTATION

6"
CURB AND GUTTER

116



SECTION



END CUTOFF

8" DIKE

NOTES:

1. DIKE SHALL BE CONSTRUCTED OF TYPE B ASPHALT CONCRETE.
2. PAINT BINDER SHALL BE PLACED ON EXISTING ASPHALT CONCRETE PAVEMENT PRIOR TO THE INSTALLATION OF THE DIKE.

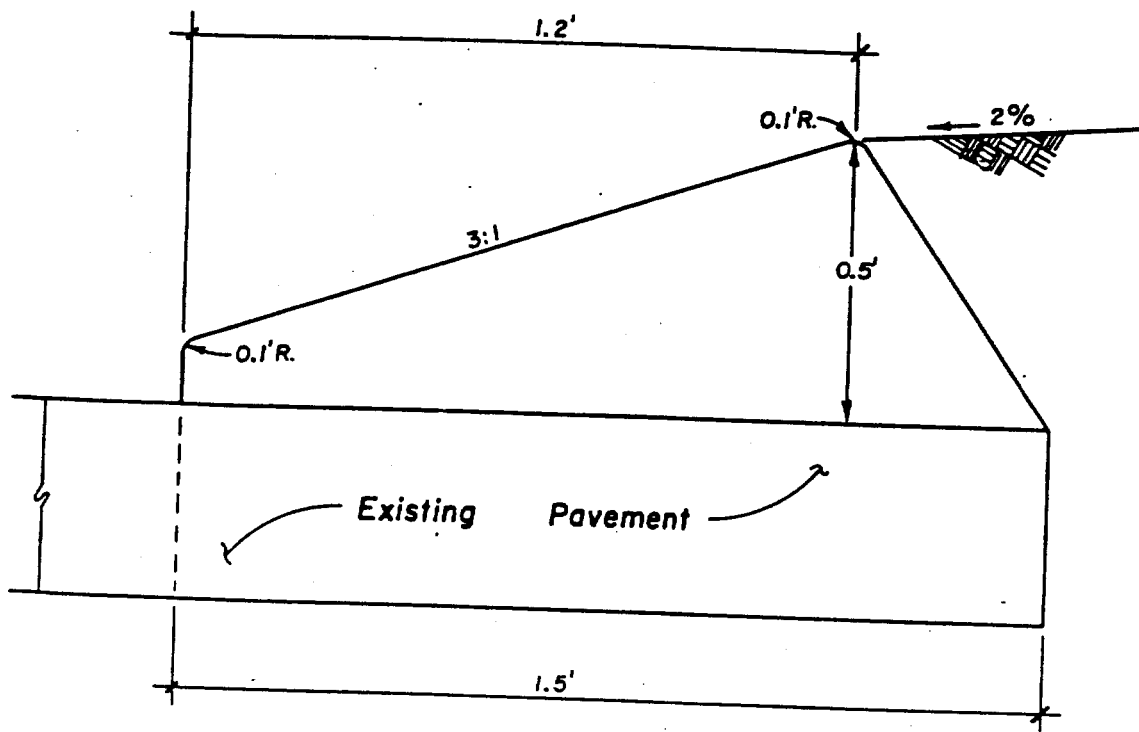
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 6-65

M. A. Nicholas
COUNTY ENGINEER

ASPHALT CONCRETE
DIKE

117



TYPICAL SECTION

NOTES:

1. Dike Shall Be Constructed Of Type B Asphalt Concrete.
2. Paint Binder Shall Be Placed On Existing Asphalt Concrete Pavement Prior To The Installation Of The Dike.

4-1-93 vhc

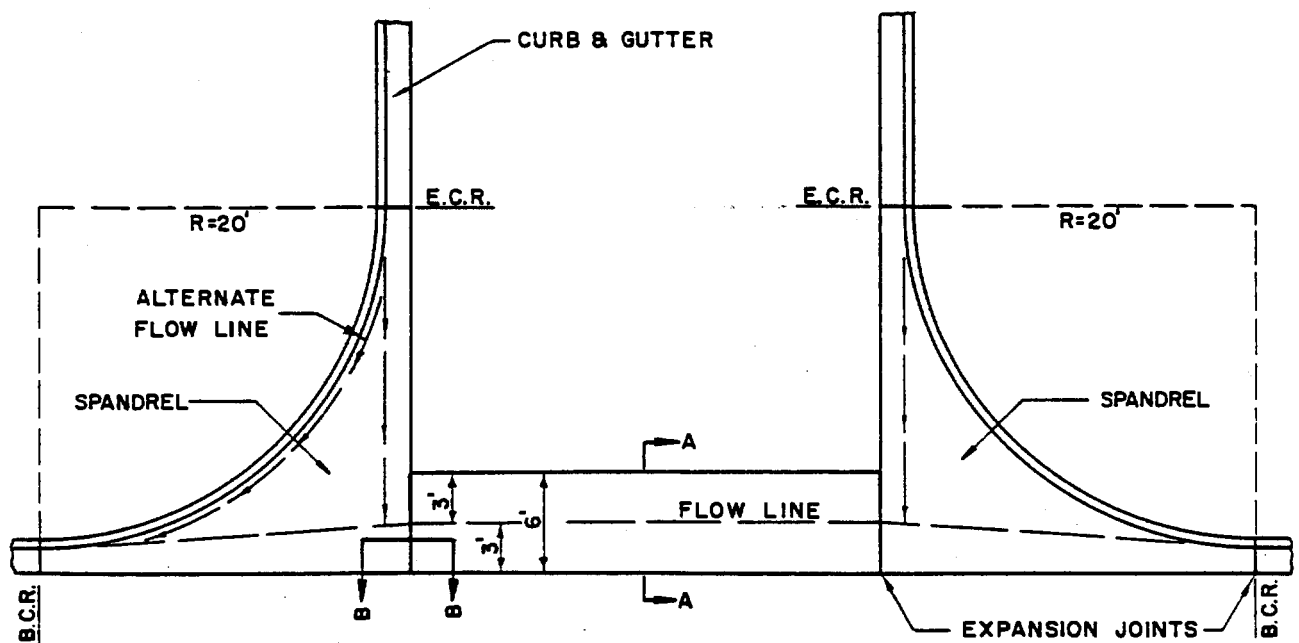
SAN BERNARDINO COUNTY TRAN. DEPT.

REV. 3/1/91

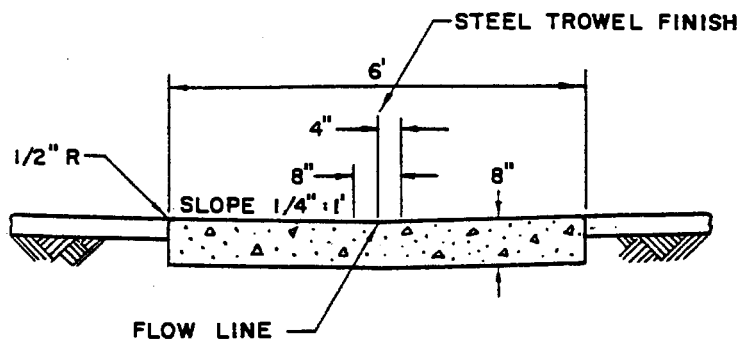
KEN A. MILLER
Director of Transportation

TRAVERSABLE DIKE

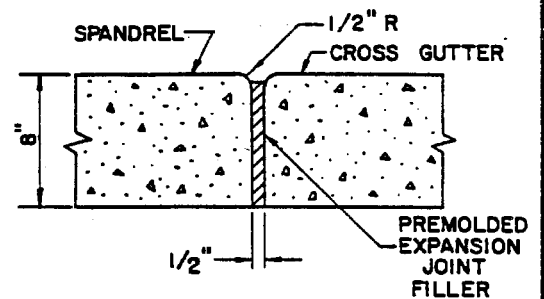
117a



PLAN



SECTION A-A



SECTION B-B

NOTES:

1. CROSS GUTTER SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. THE STRAIGHT GRADE BETWEEN B.C.R.'S MAY BE ALTERED ON AN EXCESSIVE GRADE.
3. A 0.3' MINIMUM FALL IS REQUIRED BETWEEN E.C.R. AND CROSS GUTTER FLOWLINE.
4. SPANDREL SHALL BE 8" THICKNESS CLASS "B" CONCRETE.
5. VARIABLE CURB FACE ALLOWED FOR DRAINAGE PURPOSES.

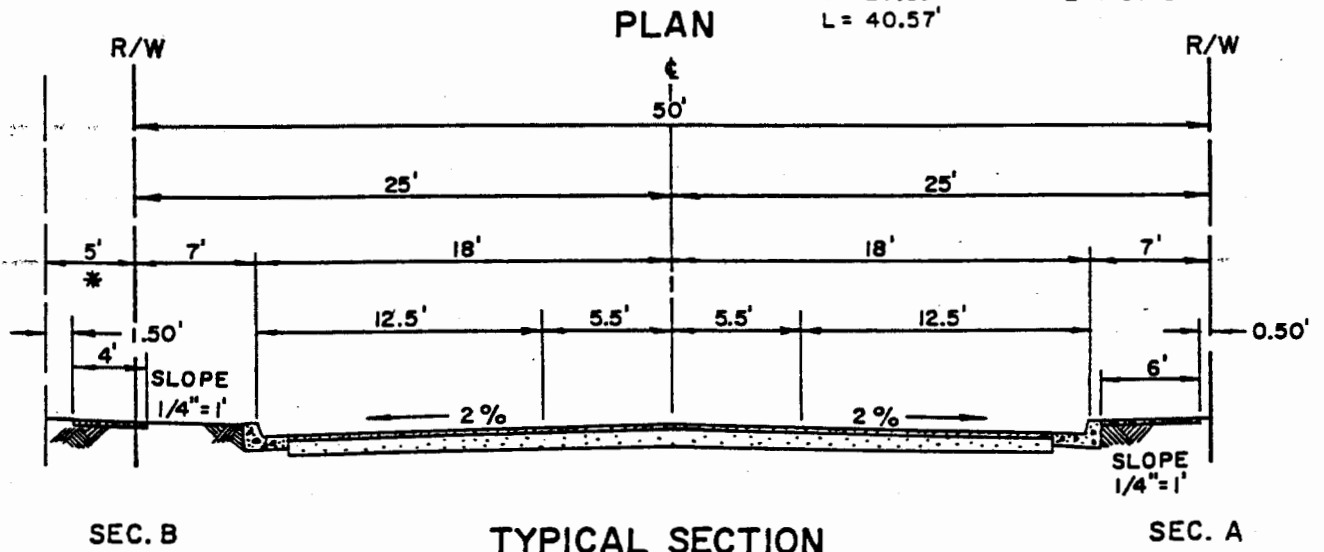
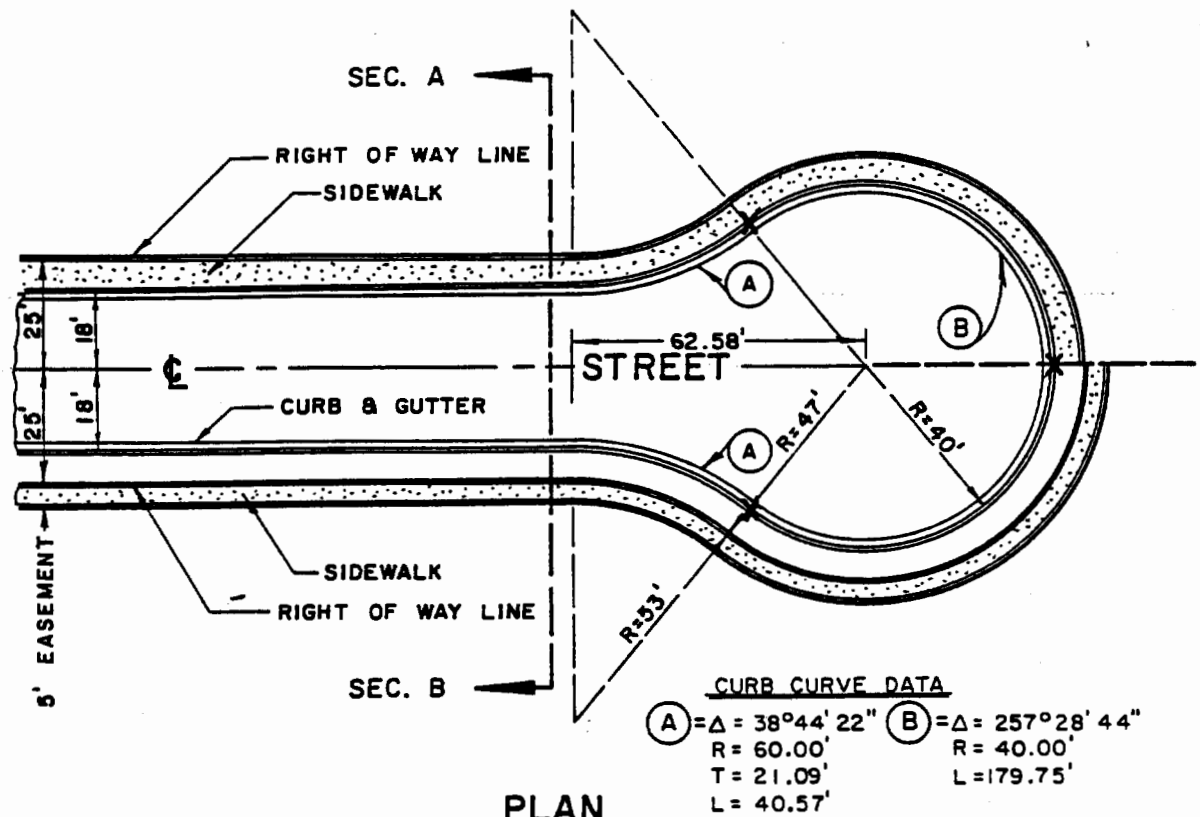
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.1.65

M. A. Nicholas
COUNTY ENGINEER

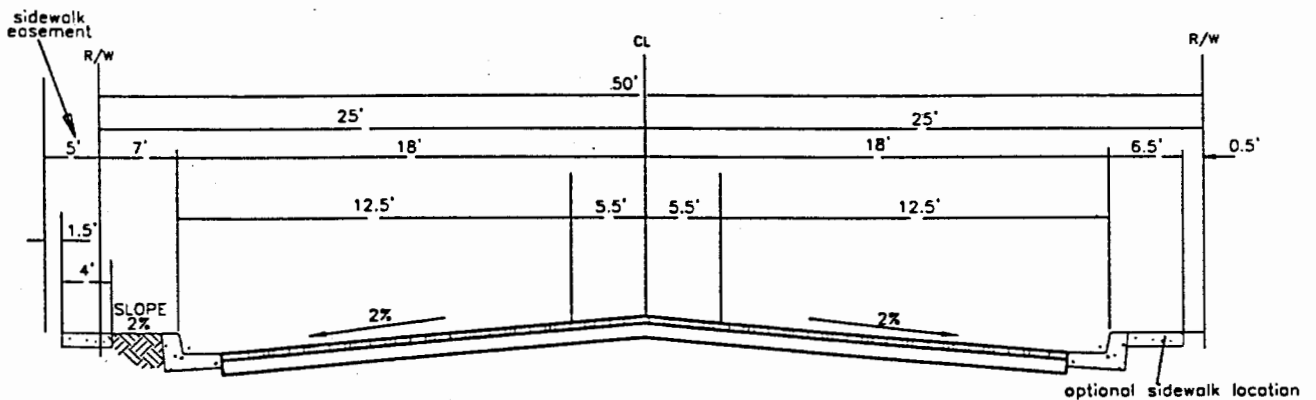
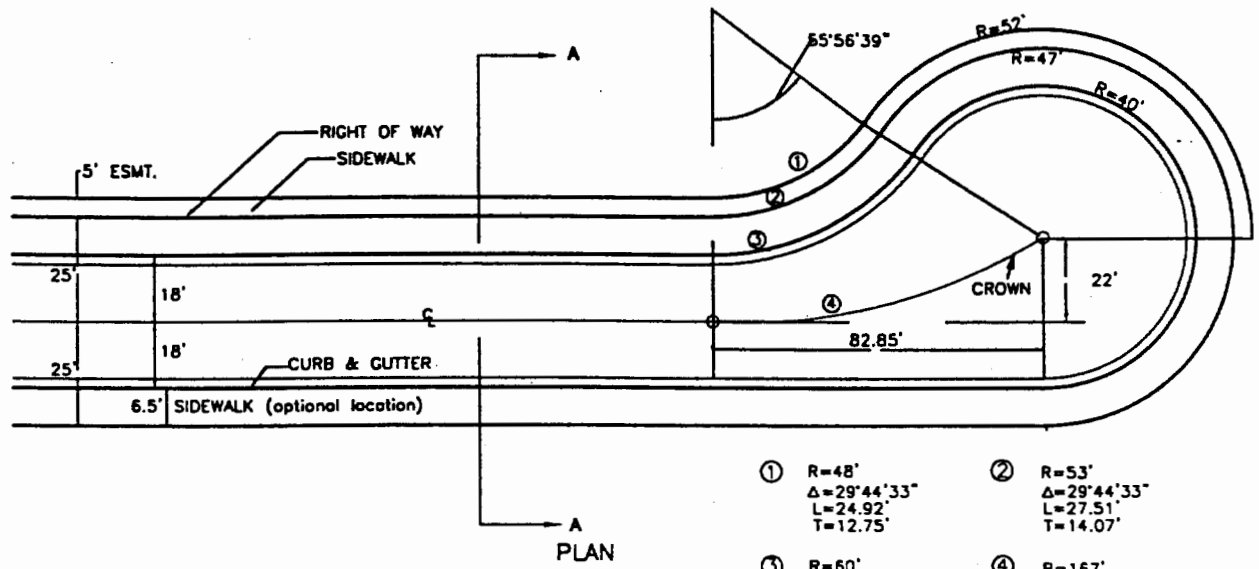
CROSS GUTTER

119



NOTES:

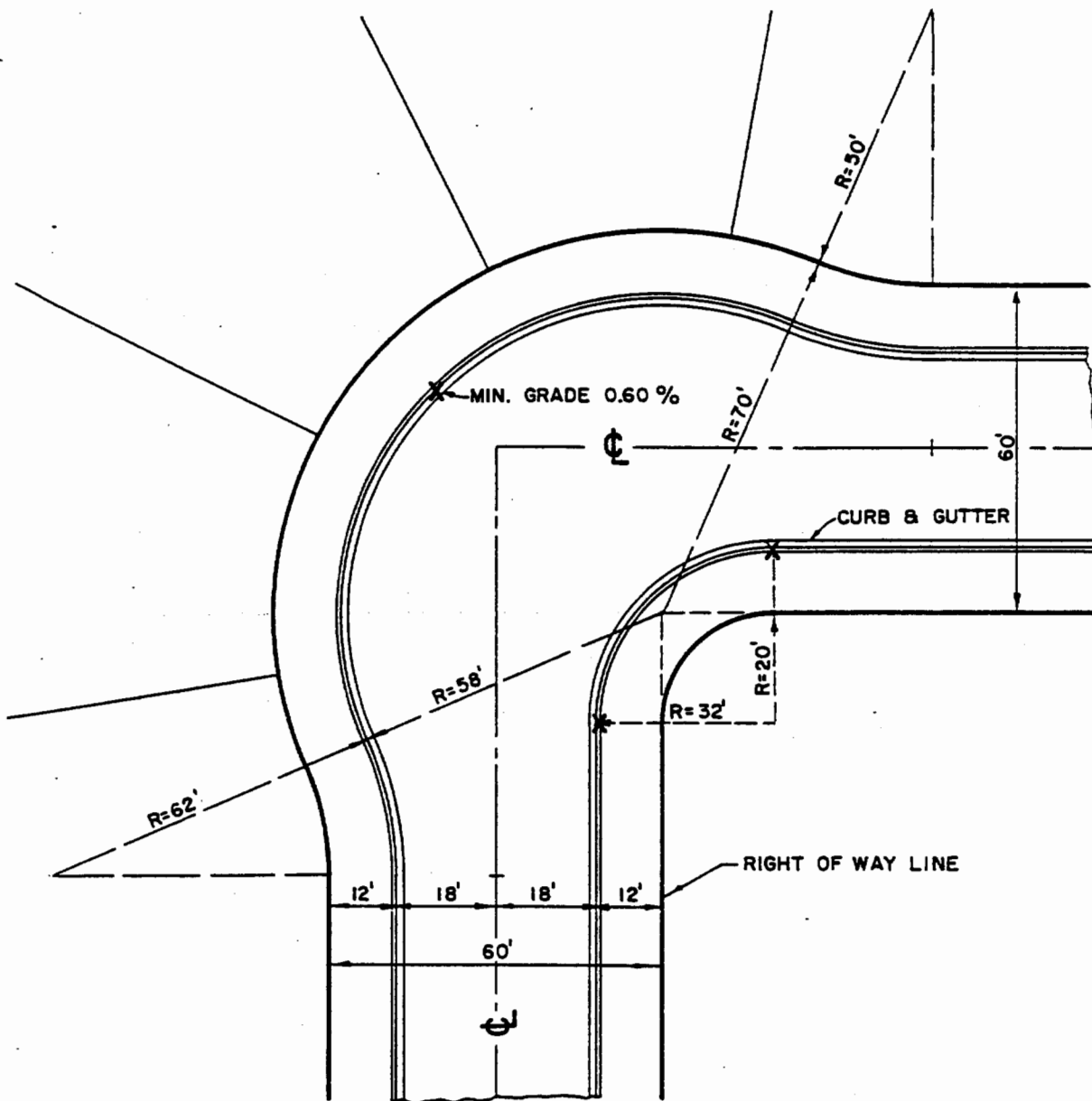
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOIL TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. 0.6% GRADE MIN. ON GUTTER OF BULB.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO. 104.
- * 5' WIDE SIDEWALK AND PUBLIC UTILITIES EASEMENT AT THE OPTION OF THE OWNER, THIS AREA MAY BE DEDICATED AS ROAD RIGHT-OF-WAY.
6. X Indicates position of survey reference point (#10 Round Head Brass Screw minimum length 1 1/4") set flush with top of curb during construction.



NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOIL TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.
3. 0.6% GRADE MIN. ON GUTTER OF BULB.
4. TILT SECTION SHALL CONFORM TO LOCAL STREET STANDARD NO.104.
5. SIDEWALK SHALL CONFORM TO LOCAL STREET STANDARD NO.109.
6. SIDEWALK AND PUBLIC UTILITIES EASEMENT AT THE OPTION OF THE OWNER, THIS AREA MAY BE DEDICATED AS ROAD RIGHT-OF-WAY.
7. X INDICATES POSITION OF SURVEY REFERENCE POINT (#10 ROUNDHEAD BRASS SCREW MINIMUM LENGTH 1.25" SET FLUSH WITH TOP OF CURB DURING CONSTRUCTION.

SAN BERNARDINO COUNTY TRANS. DEPT.		OFFSET CUL-DE-SAC	120A
	KEN A. MILLER		
	Director of Transportation		



PLAN

NOTES:

1. MINIMUM 0.60% ON ALL HORIZONTAL CURVE GRADES.
2. SEE STANDARD NO. 104 FOR TYPICAL SECTION.
3. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length 1 1/4") set flush with top of curb during construction.

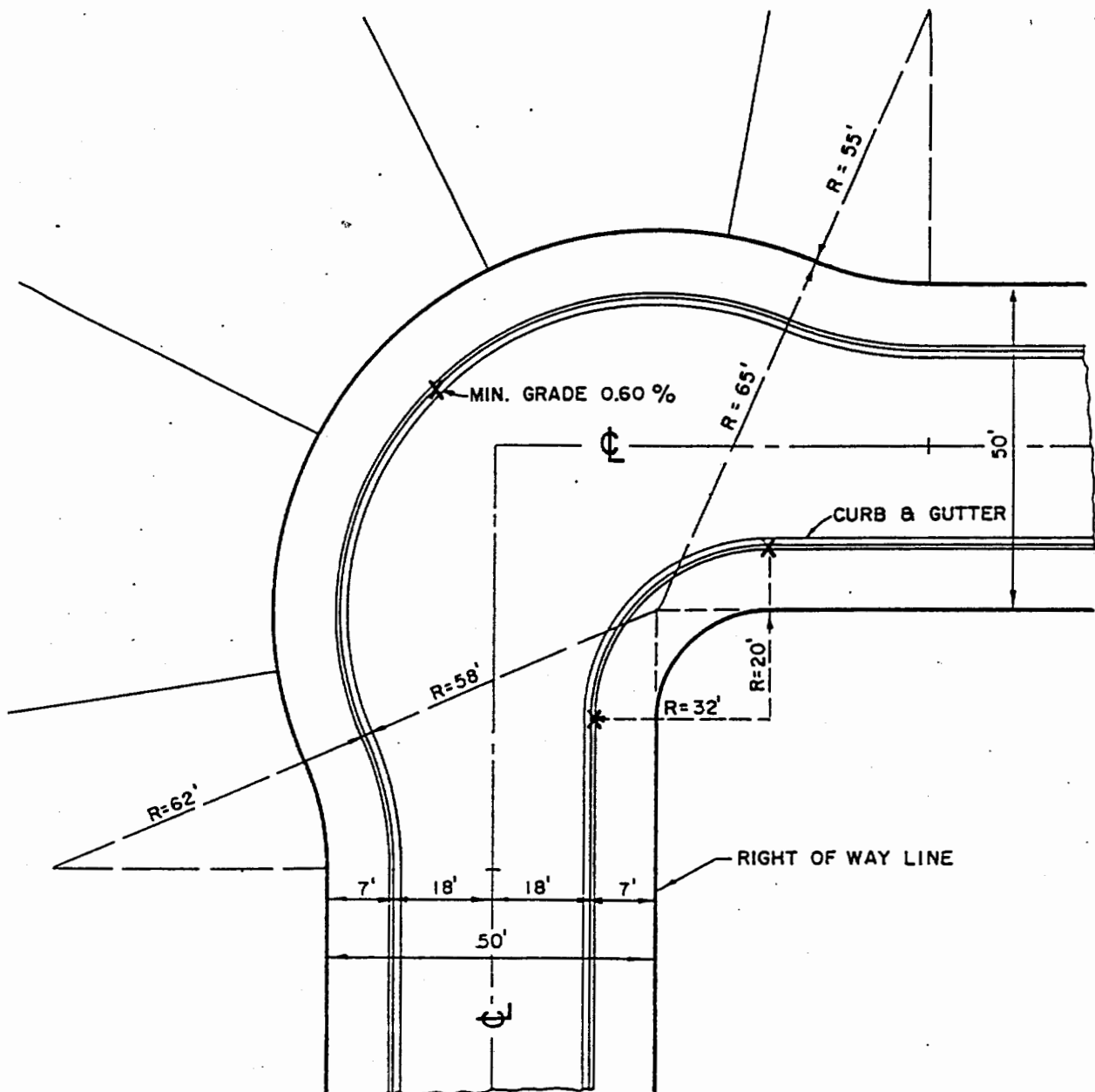
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 4-65
Rev. VEH 2-79

M. A. Nicholas
COUNTY ENGINEER

INTERSECTION DESIGN
"L" SHAPE

121



PLAN

NOTES:

1. MINIMUM 0.60% ON ALL HORIZONTAL CURVE GRADES.
2. SEE STANDARD NO. 104A FOR TYPICAL SECTION AND NOTES.
3. X Indicates position of survey reference point (#10 Round Head Brass Screw, minimum length 1 1/4") set flush with top of curb during construction.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 4-65

Rev VEH 2-79

120 8-89

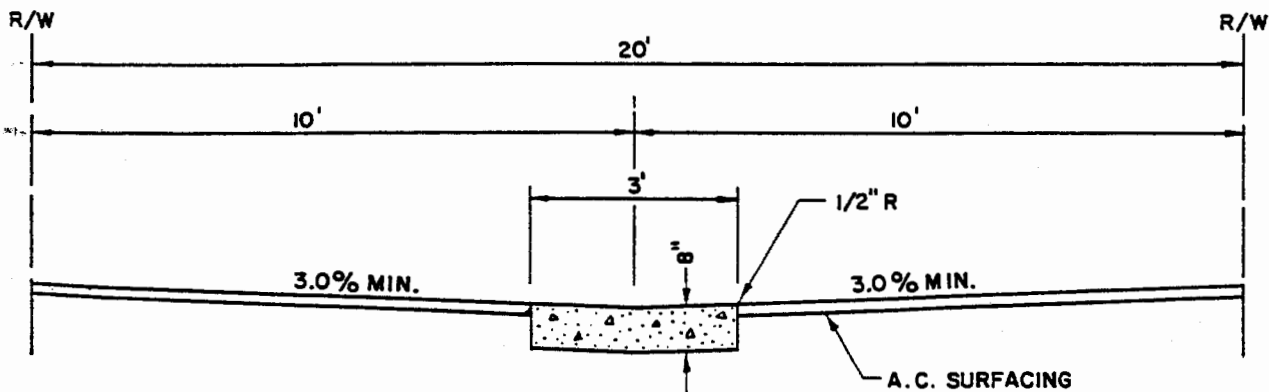
Ken A. Miller

DIRECTOR OF TRANSPORTATION

INTERSECTION DESIGN

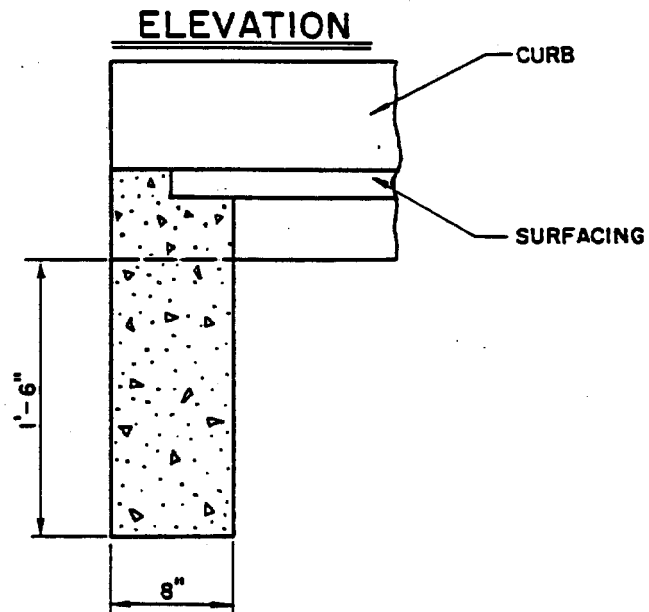
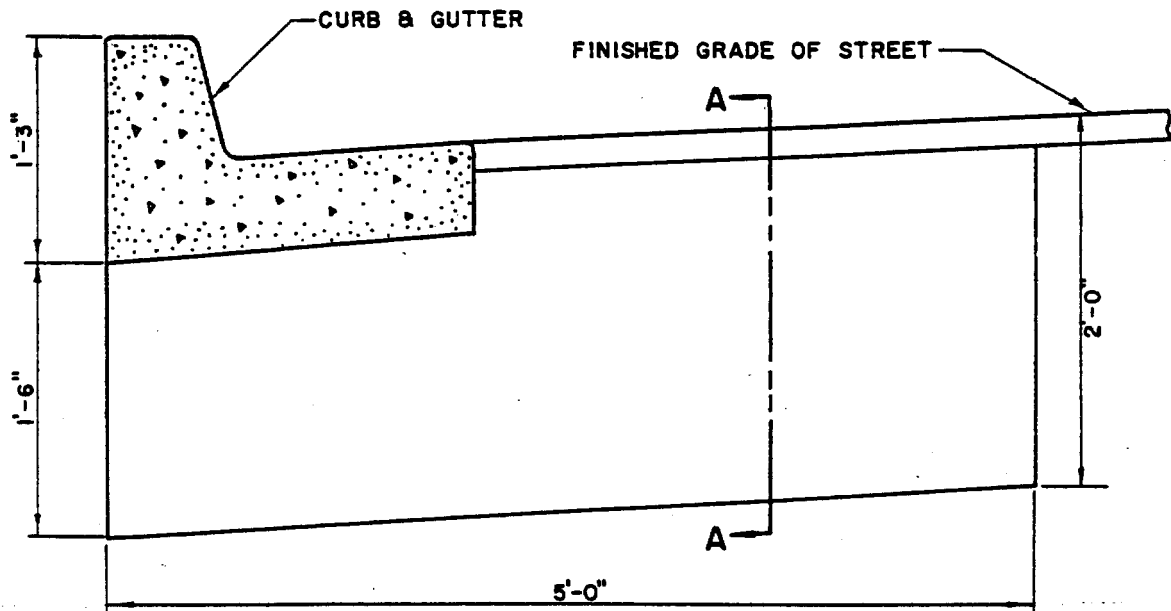
"L" SHAPE 50' R/W

121A



NOTES:

1. CONCRETE RIBBON SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. ASPHALT CONCRETE SHALL HAVE A MINIMUM THICKNESS OF TWO INCHES.



SECTION A-A

NOTES:

1. CUTOFF WALL SHALL BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. CUTOFF WALL SHALL BE INSTALLED WHERE REQUIRED BY DRAINAGE CONDITIONS.

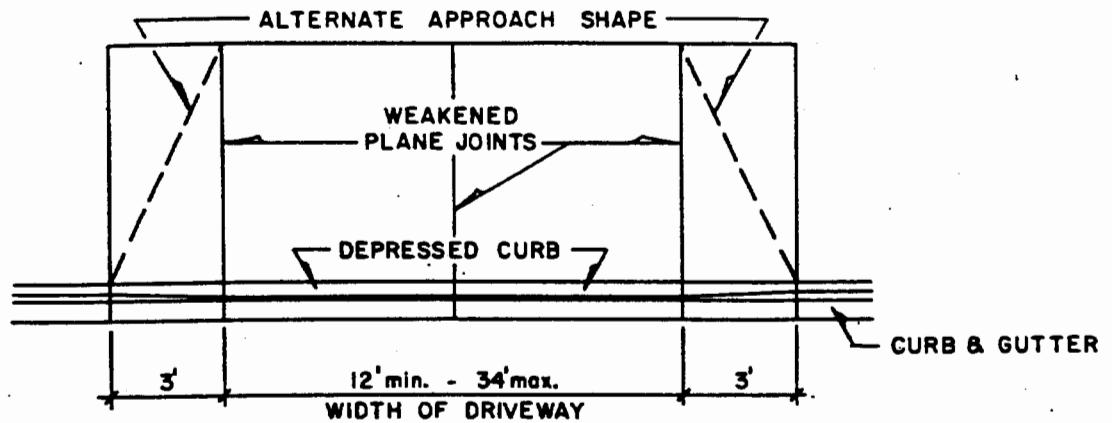
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.11.65

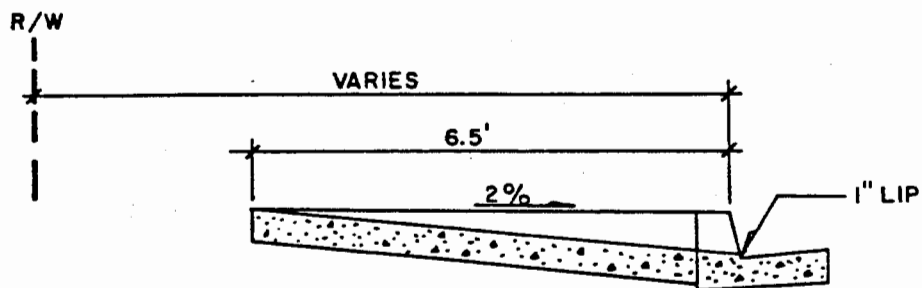
M. A. Nicholas
COUNTY ENGINEER

**CURB
CUT OFF WALL**

127



PLAN



SECTION

NOTES:

1. Driveway Approach Location Shall Be As Indicated In The S.B. Co. Transportation Department Road Planning & Design Manual And Per Standard No.130.
2. To Construct A Depression In Existing Curb And Gutter:
 - a. Saw Cut And Remove For The Necessary Width.
 - b. Remove And Reconstruct To The Nearest Joint.
 - c. Horizontal Saw Cut And Remove Curb As Necessary.
3. An Approach Must Be Constructed With Each Curb Depression.
4. Surfacing Shall Be Portland Cement Concrete Class 'B' (5 Sack) 4" Thick And Have A Broom Finish.

SAN BERNARDINO COUNTY TRANS. DEPT.

OCT. 1, 1993 v.h.c.

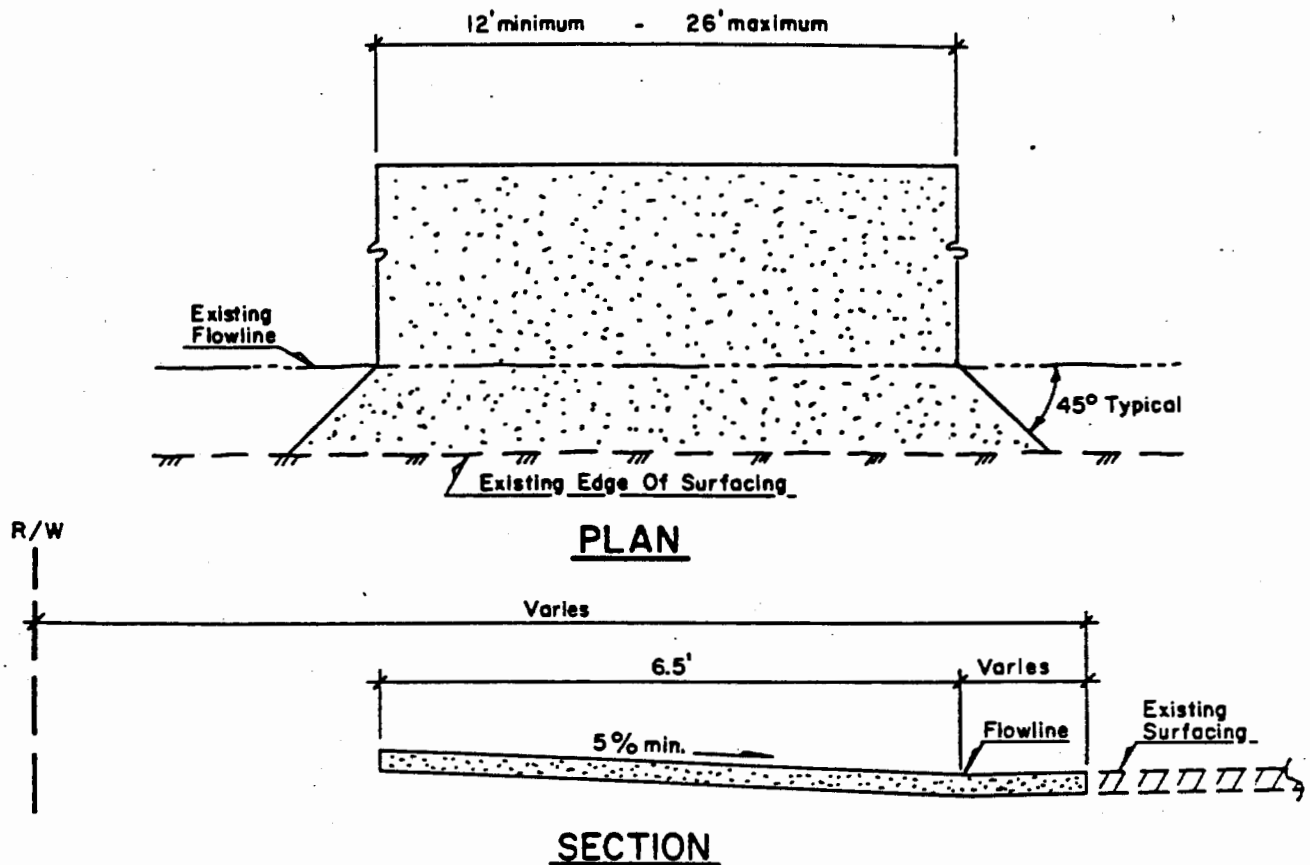
REV. 3/1/94

KEN A. MILLER

Director of Transportation

**RESIDENTIAL DRIVEWAY
APPROACH WITH CURB**

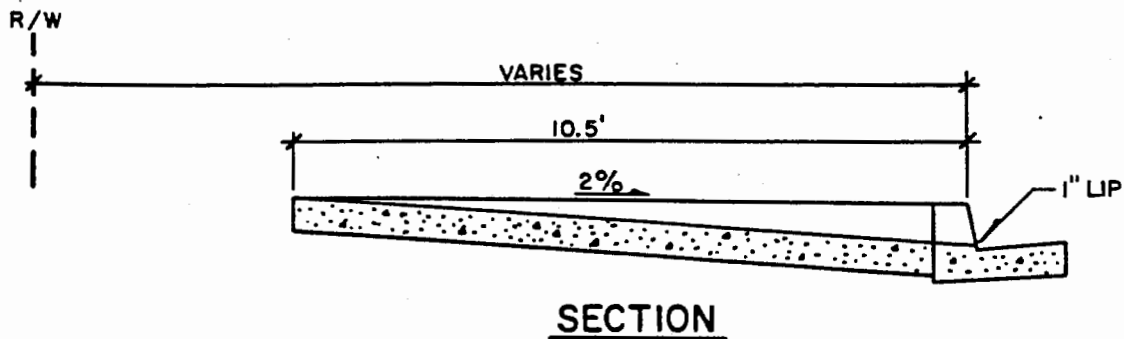
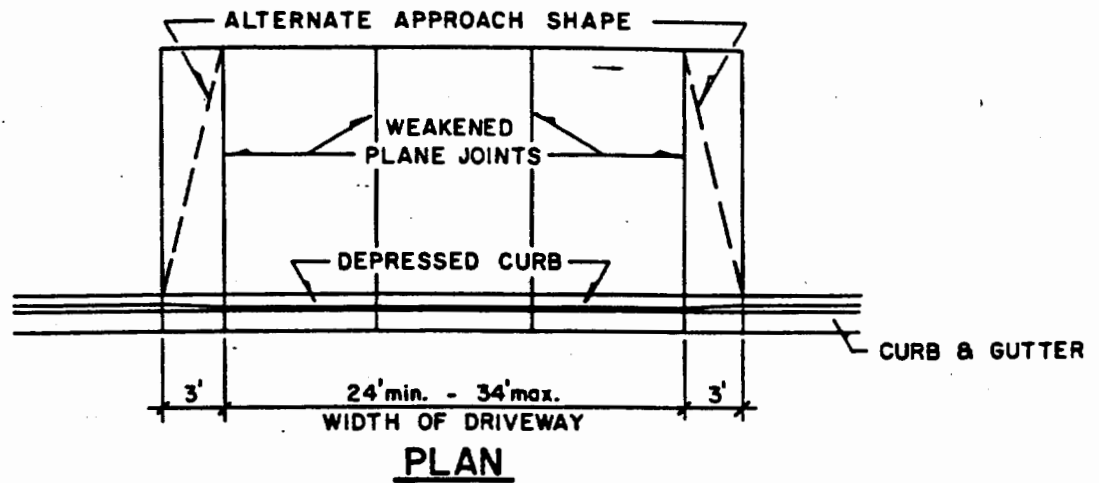
128



NOTES:

1. Driveway Approach Location Shall Be As Indicated In The S.B. County Transportation Department Road Planning & Design Manual And Per Standard N^o 130.
2. Surfacing Material Shall Be:
 - a. Type 'B' Asphalt Concrete Grade AR-4000, 1/2" Max. Med., 3" Thick.
 - b. In Areas Not Regularly Subjected To Snowplowing, Portland Cement Concrete Class 'B', 4" Thick May Be Used.
 - c. Unpaved, If The Roadway Is Unpaved.
3. Flowline Grade Shall Be Maintained.
4. Where Existing Berm Is Removed, The Approach Shall Be Constructed To An Elevation Equal In Height To Control Drainage.

SAN BERNARDINO COUNTY TRANS. DEPT.		RESIDENTIAL DRIVEWAY APPROACH WITHOUT CURB	128a
OCT. 4, 1993 v.h.c.	KEN A. MILLER		
REV 3/1/94	Director of Transportation		

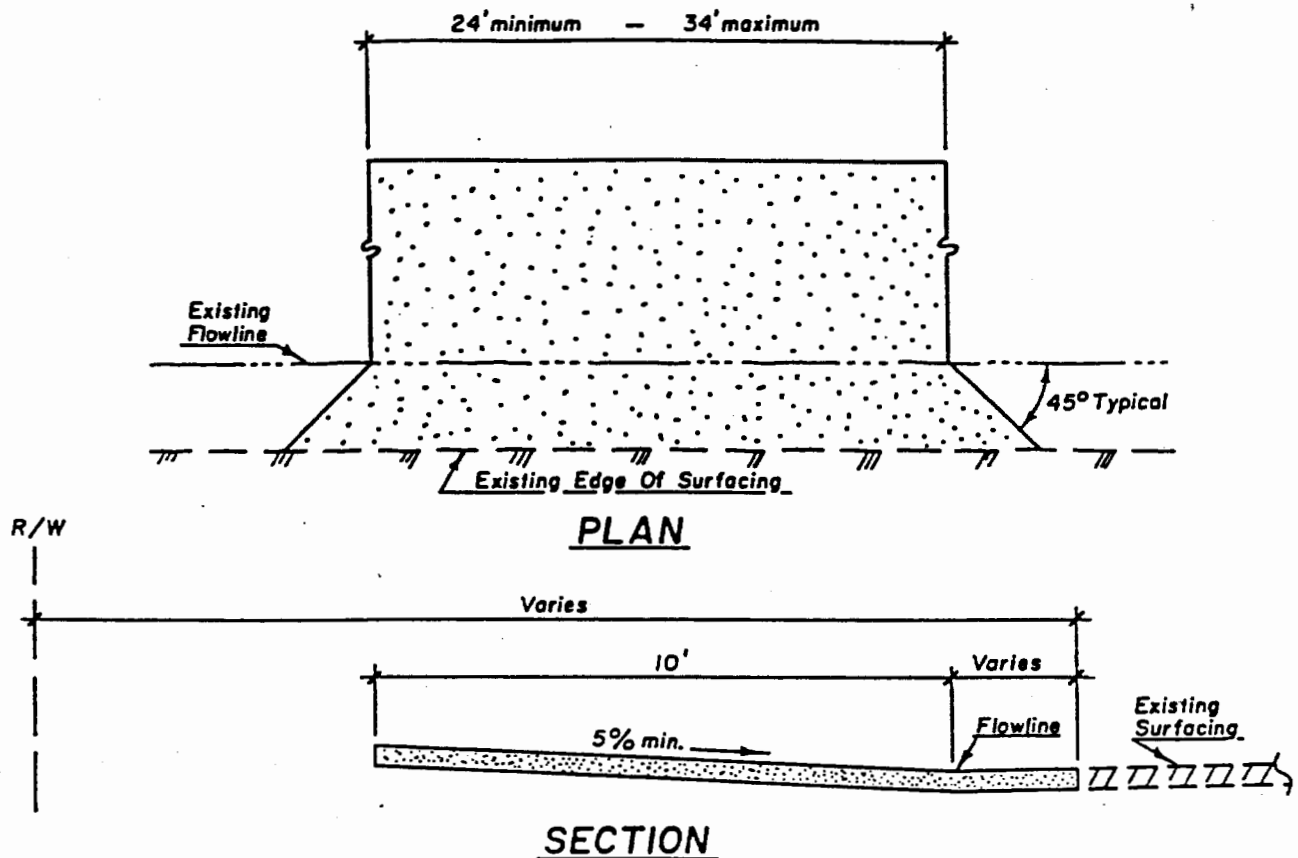


NOTES:

1. Driveway Approach Location Shall Be As Indicated In The S.B. Co. Transportation Department Road Planning & Design Manual And Per Standard No. 130.
2. To Construct A Depression In Existing Curb And Gutter:
 - a. Saw Cut And Remove For The Necessary Width.
 - b. Remove And Reconstruct To The Nearest Joint.
 - c. Horizontal Saw Cut And Remove Curb As Necessary.
3. An Approach Must Be Constructed With Each Curb Depression.
4. Surfacing Shall Be Portland Cement Concrete Class 'B' (5 Sack) 6" Thick And Have A Broom Finish.

SAN BERNARDINO COUNTY TRANS. DEPT.		COMMERCIAL DRIVEWAY APPROACH WITH CURB	129
REV. 3/1/94	KEN A. MILLER Director of Transportation		

10-1-93 vhc



NOTES:

1. Driveway Approach Location Shall Be As Indicated In The S.B. Co. Transportation Department Road Planning & Design Manual And Per Standard N^o 130.
2. Surfacing Material Shall Be:
 - a. Type B Asphalt Concrete Grade AR-4000, 1/2" Max. Med., 3" Thick.
 - b. In Areas Not Regularly Subjected To Snowplowing, Portland Cement Concrete Class B 6" Thick May Be Used.
 - c. Unpaved, If The Roadway Is Unpaved.
3. Flowline Grade Shall Be Maintained.
4. Where Existing Berm is Removed, The Approach Shall Be Constructed To An Elevation Equal In Height To Control Drainage.

SAN BERNARDINO COUNTY TRANS. DEPT.

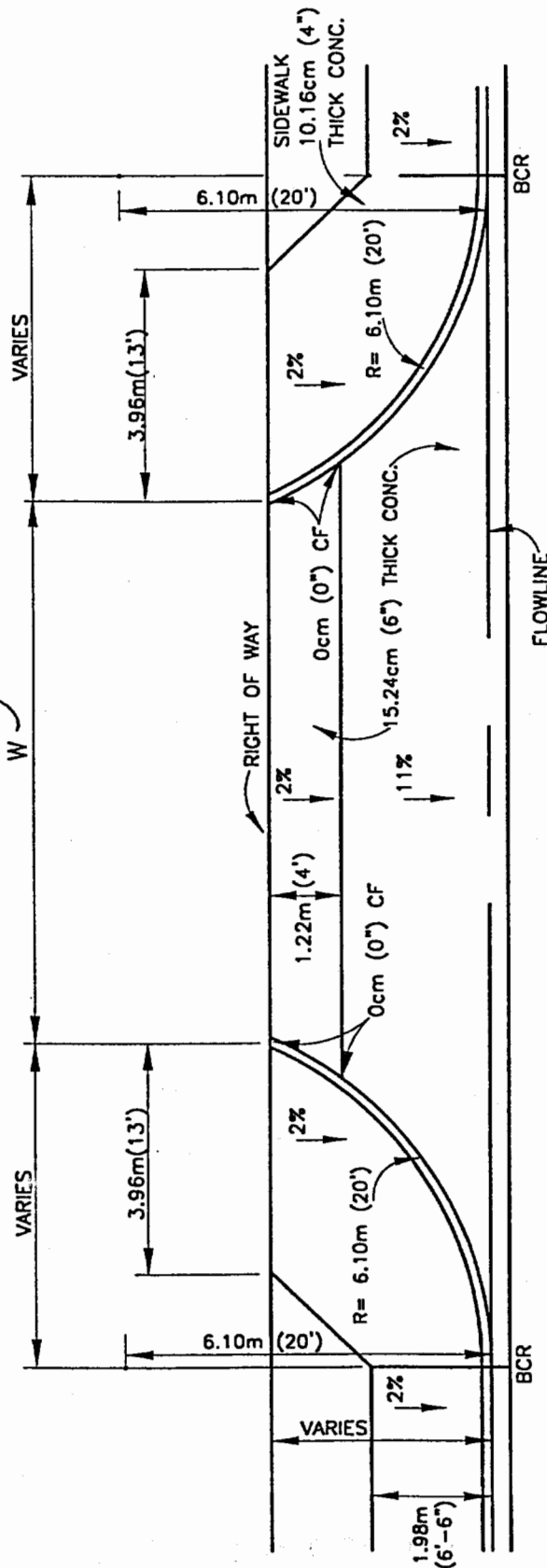
REV. 3/1/94

KEN A. MILLER
Director of Transportation

**COMMERCIAL DRIVEWAY
APPROACH
WITHOUT CURB**

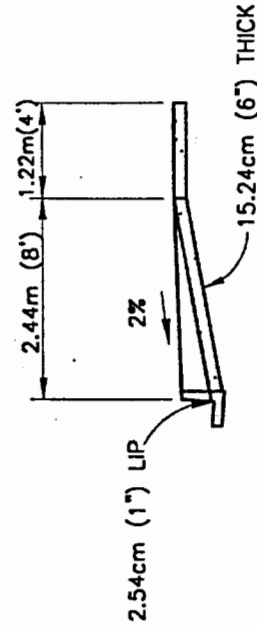
129a

min 24' maximum 34'



NOTES:

1. DRIVEWAY LOCATION SHALL BE AS INDICATED IN THE S.B. CO. TRANSPORTATION DEPARTMENT ROAD PLANNING & DESIGN MANUAL AND PER STANDARD NO.130.
2. TO CONSTRUCT A DEPRESSION IN EXISTING CURB AND GUTTER:
 - a. SAW CUT AND REMOVE FOR THE NECESSARY WIDTH.
 - b. REMOVE AND RECONSTRUCT TO THE NEAREST JOINT.
 - c. HORIZONTAL SAW CUT AND REMOVE CURB AS NECESSARY.
3. A DRIVEWAY MUST BE CONSTRUCTED WITH EACH CURB DEPRESSION.
4. SURFACING SHALL BE PORTLAND CEMENT CONCRETE CLASS 'B' (5 SACK) 15.24cm (6 inch) THICK AND HAVE A BROOM FINISH.



SECTION

AUGUST 1998

N.T.S.

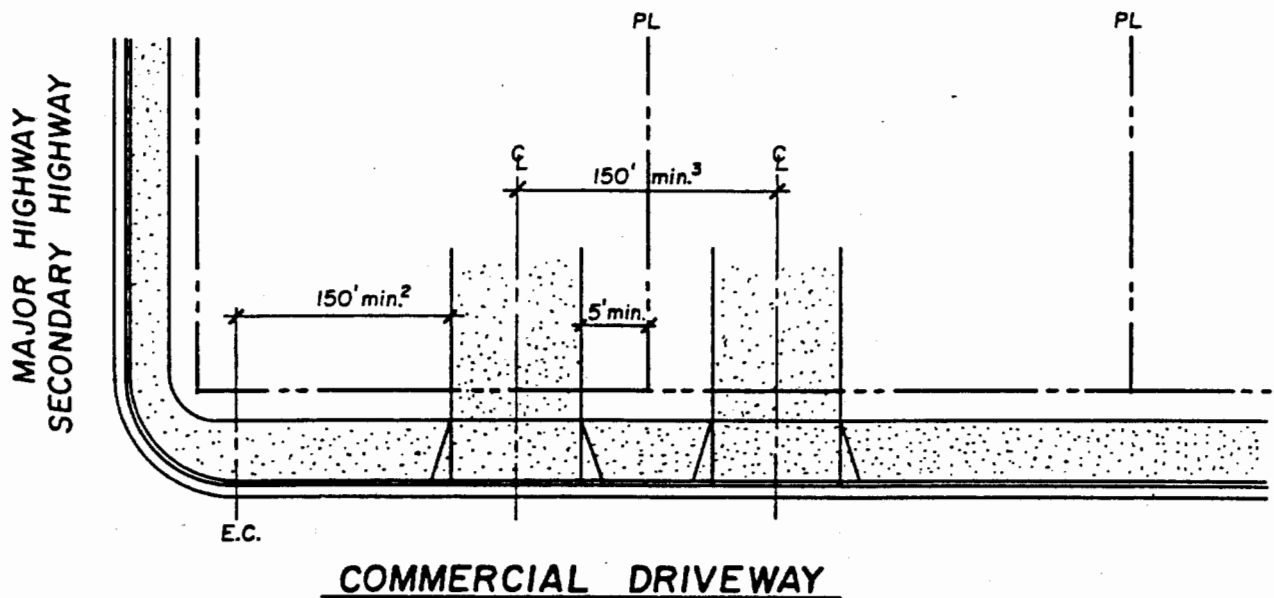
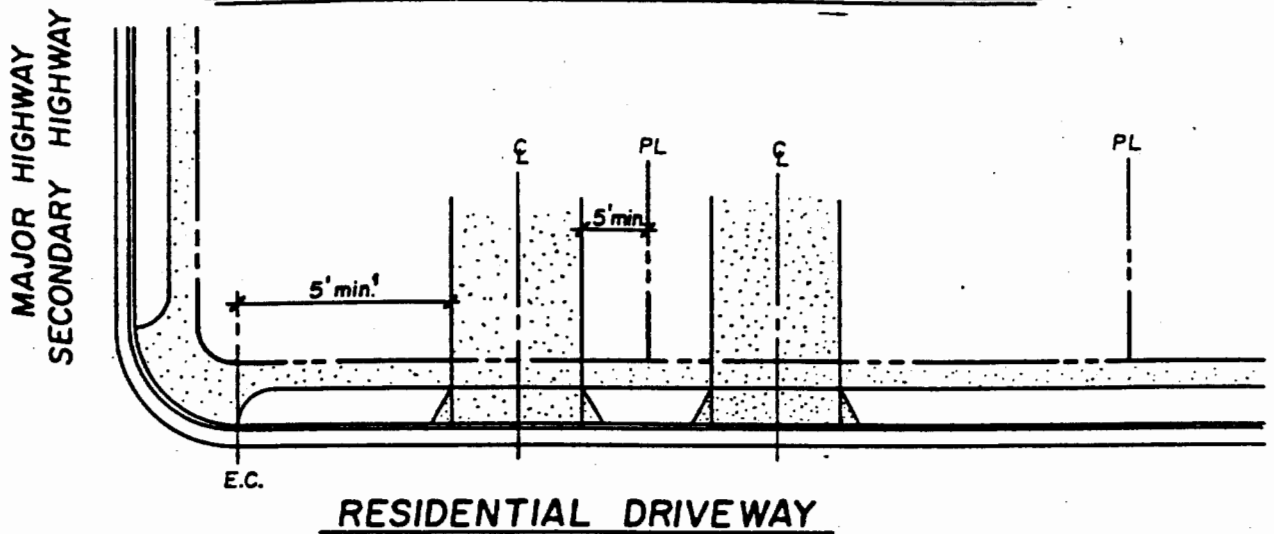
SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

COMMERCIAL DRIVEWAY
WITH CURB RETURNS

129B

LOCAL STREET - COLLECTOR ROAD



NOTES:

Refer To Section 6.3 In S.B. Co. Transportation Dept. Road Planning & Design Manual For Number Of Access Points Permitted.

¹ 75' On Collector Roads, Except 50' If Ult. A.D.T. Is Less Than 3000.

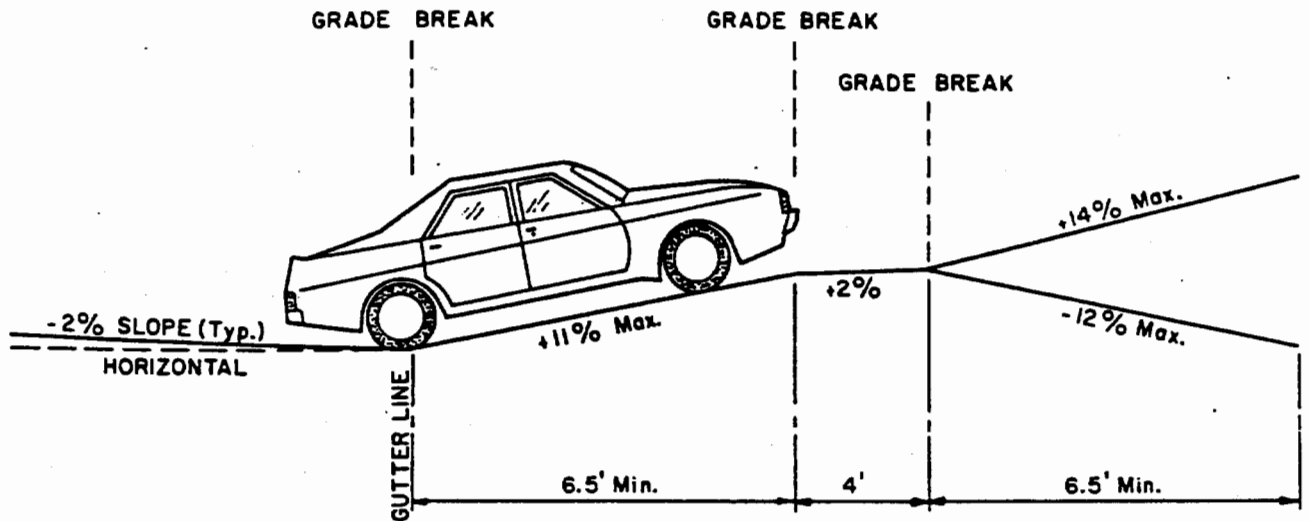
² May Be Increased 75' On Collector Roads & 50' On Local Streets To Provide Additional Clearance For Left Turn Storage.

³ Distance Determined Per Table 6-1, Page 6-3, In S.B. Co. Transportation Dept. Road Planning & Design Manual.

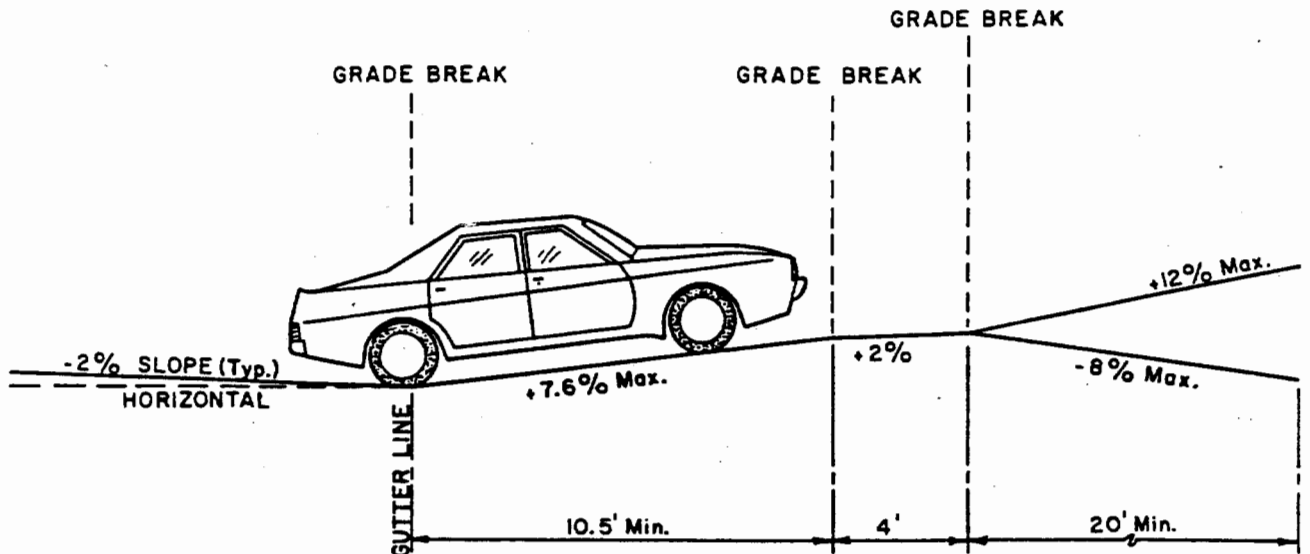
4-20-93 vhc

SAN BERNARDINO COUNTY TRANS. DEPT.		DRIVEWAY SPACING	130
REV. 3/1/94	KEN A. MILLER Director of Transportation		

RESIDENTIAL DRIVEWAY



COMMERCIAL DRIVEWAY



4-19-93 vhc

SAN BERNARDINO COUNTY TRANS. DEPT.

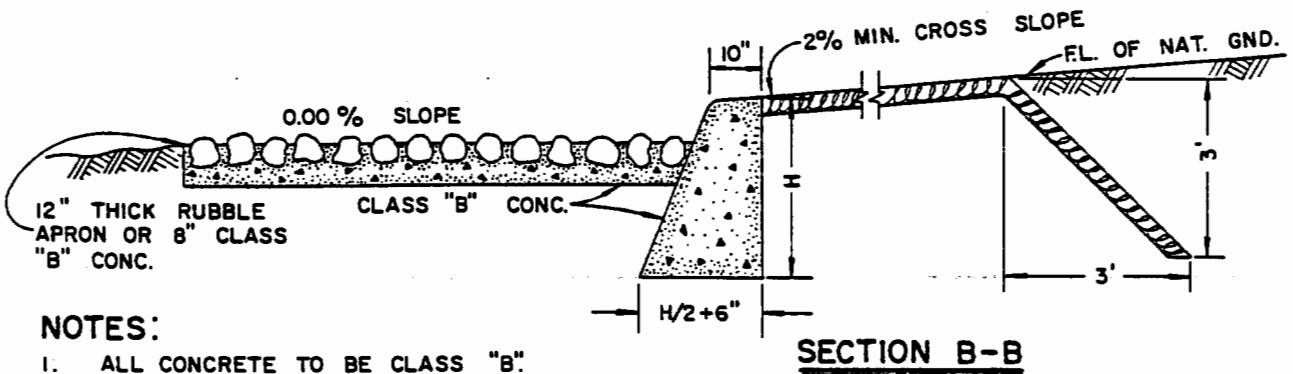
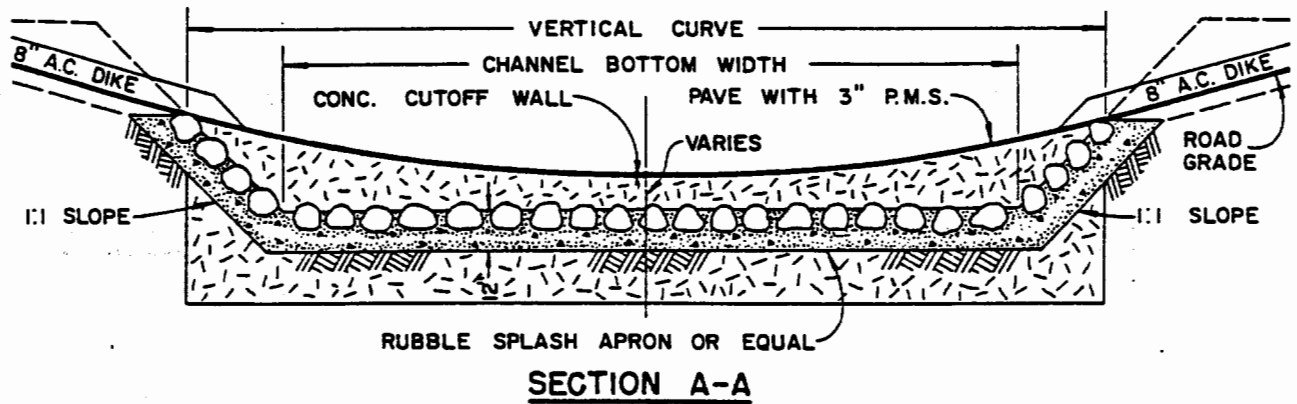
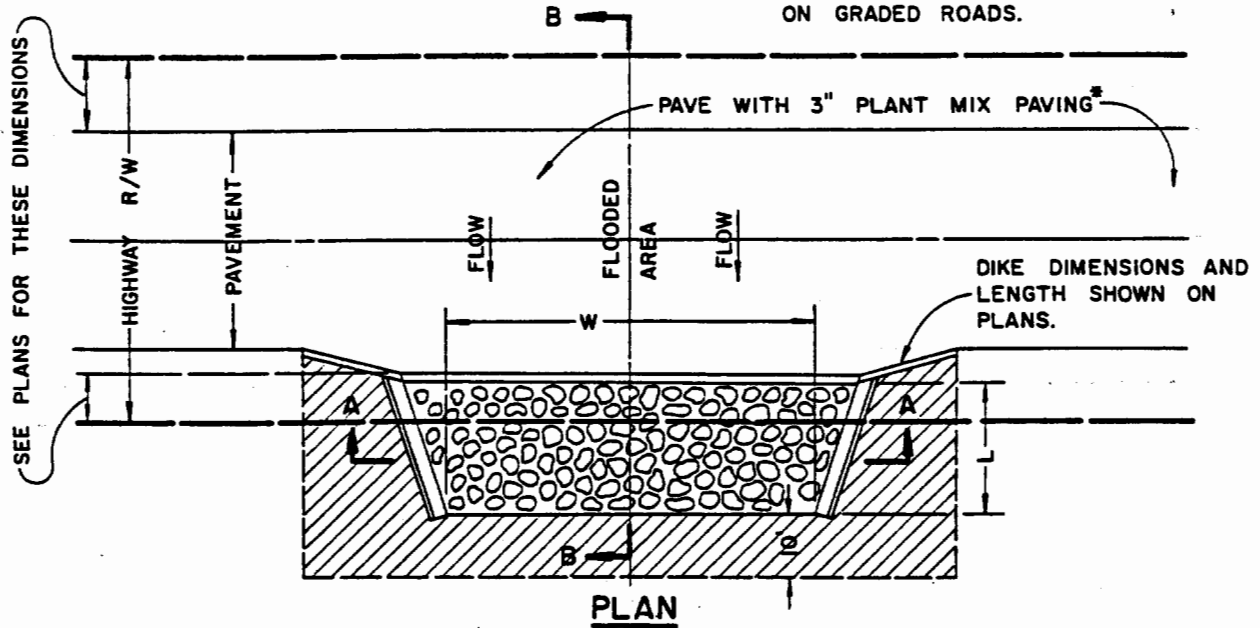
REV. 3/1/99

KEN A. MILLER
Director of Transportation


DRIVEWAY GRADES

131

*NOTE: 12" OF AGGREGATE BASE REQUIRED ON GRADED ROADS.



NOTES:

1. ALL CONCRETE TO BE CLASS "B".
2. L = SHOWN ON PLANS, H = 3' MIN., 6' MAX.
3. DRAINAGE EASEMENT REQUIRED.
4. AREA SHOWN THUS  SHALL BE COMPACTED TO 90% RELATIVE DENSITY PER STANDARD SPECIFICATION 3.04.03.
5. REINFORCED BLOCK WALL AND FOOTING PERMITTED.

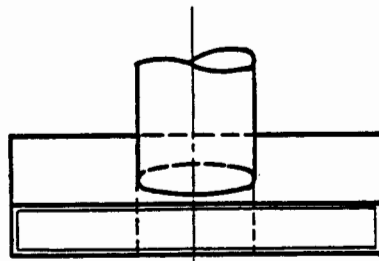
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 7-66

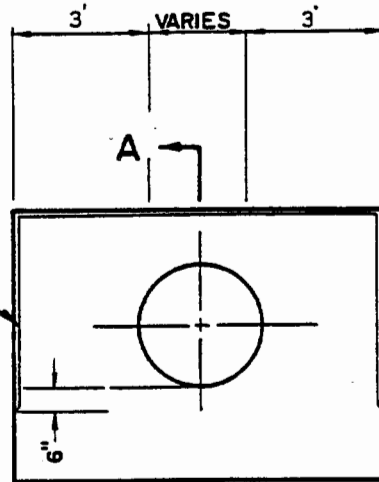
M. A. Nicholas
COUNTY ENGINEER

CUTOFF WALL FOR
DRAINAGE CHANNEL

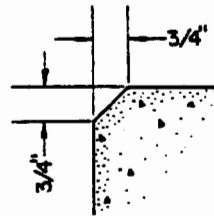
200



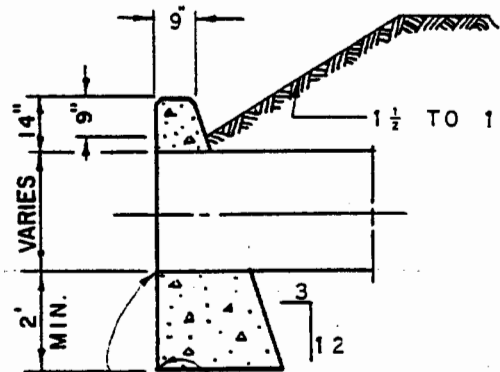
PLAN



ELEVATION



CHAMFER
DETAIL



FOR ELEVATIONS
SEE PROFILE

SECTION A-A

NOTES:

1. ALL CONCRETE SHALL BE CLASS B CONCRETE.
2. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
3. DESIGN FEATURES SHALL CONTROL THE INSTALLATION OF THIS HEADWALL.

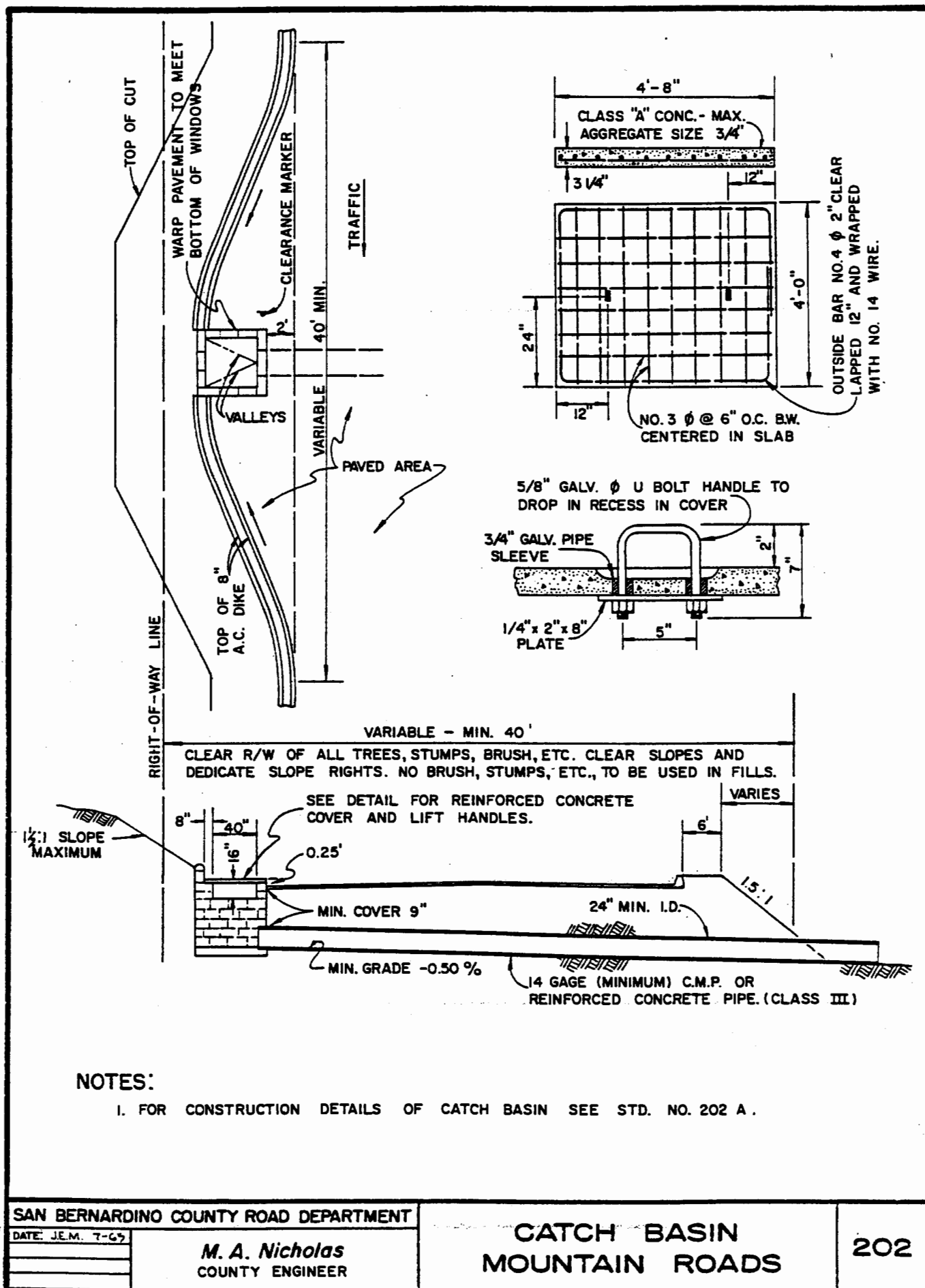
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65

M. A. Nicholas
COUNTY ENGINEER

GRAVITY HEADWALL

201



NOTES:

1. FOR CONSTRUCTION DETAILS OF CATCH BASIN SEE STD. NO. 202 A.

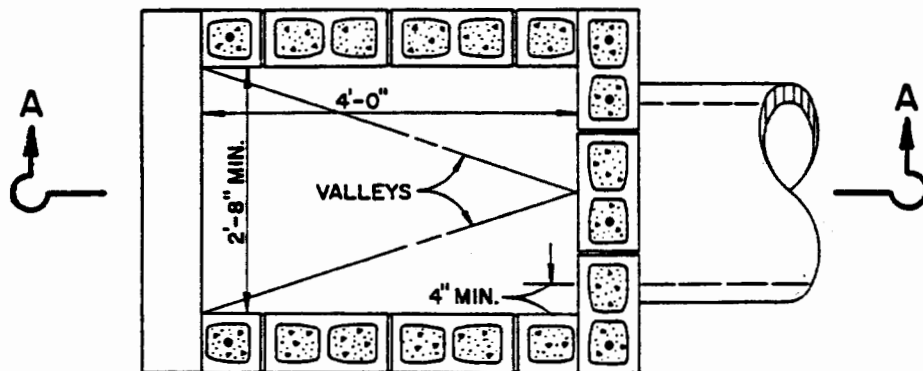
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 7-65

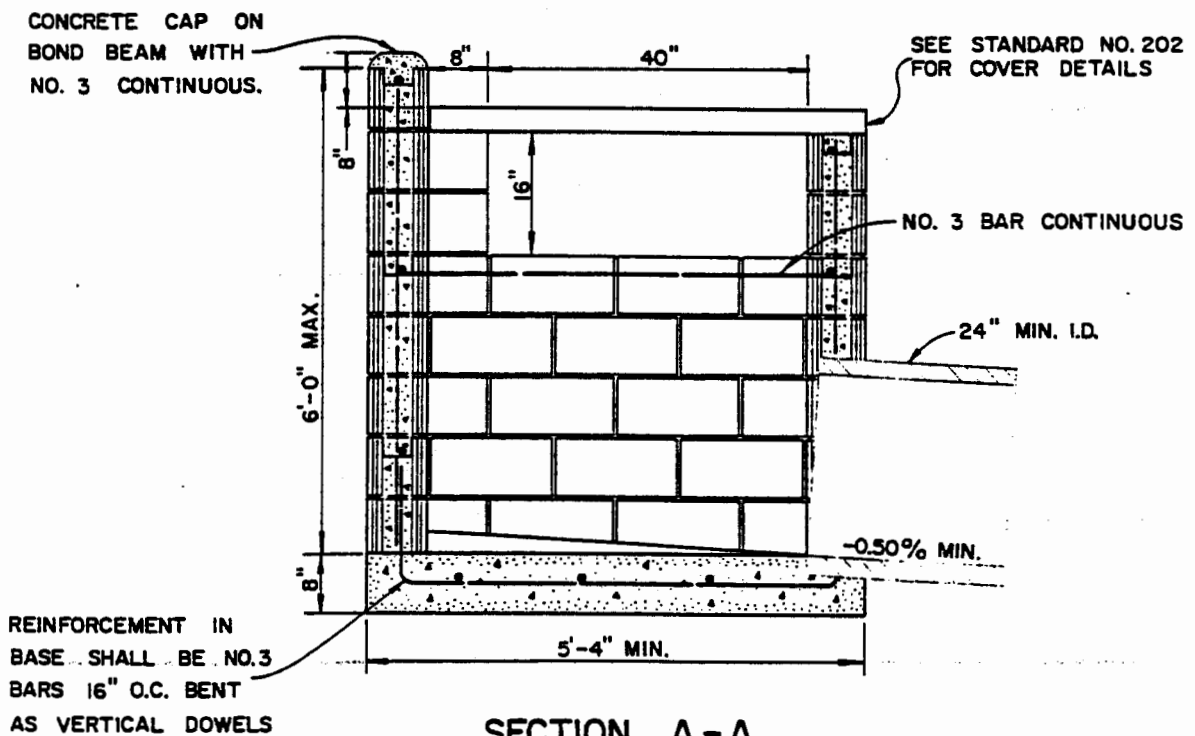
M. A. Nicholas
COUNTY ENGINEER

CATCH BASIN
MOUNTAIN ROADS

202



PLAN



SECTION A - A

NOTES:

1. 8" x 8" x 16" CONC. BLOCK WITH NO. 3 STEEL 16" O.C. VERTICAL AND 24" O.C. HORIZONTAL.
2. FILL ALL BLOCKS WITH GROUT.
3. BASE OF CATCH BASIN SHALL BE CONSTRUCTED WITH CLASS 'B' CONCRETE.
4. HORIZONTAL STEEL SHALL BE PLACED IN BOND BEAM BLOCKS.

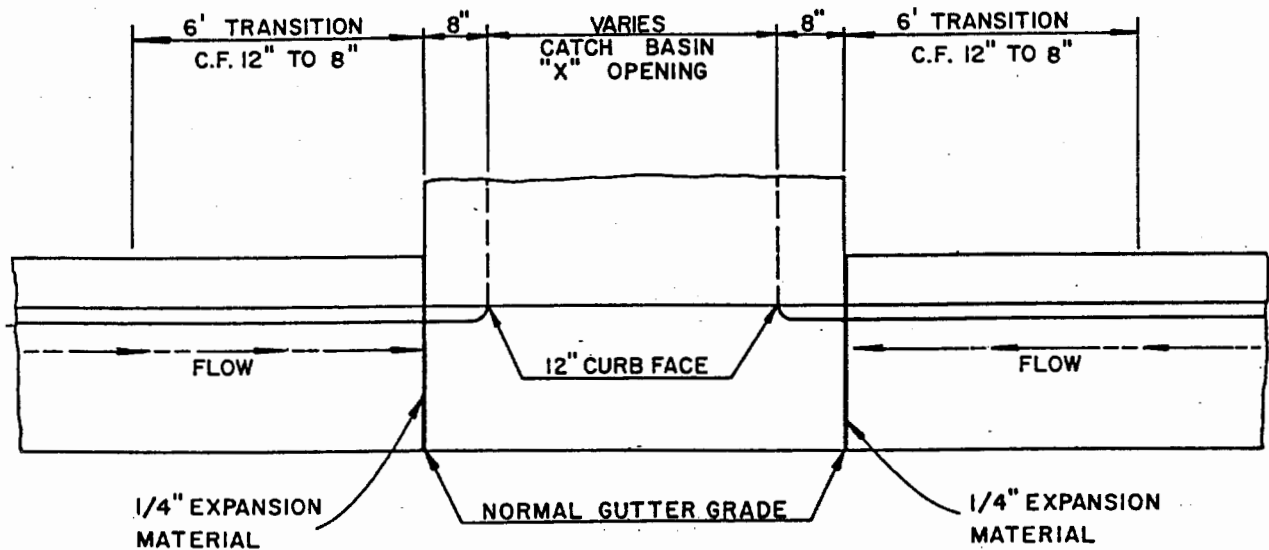
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 10-65

M. A. Nicholas
COUNTY ENGINEER

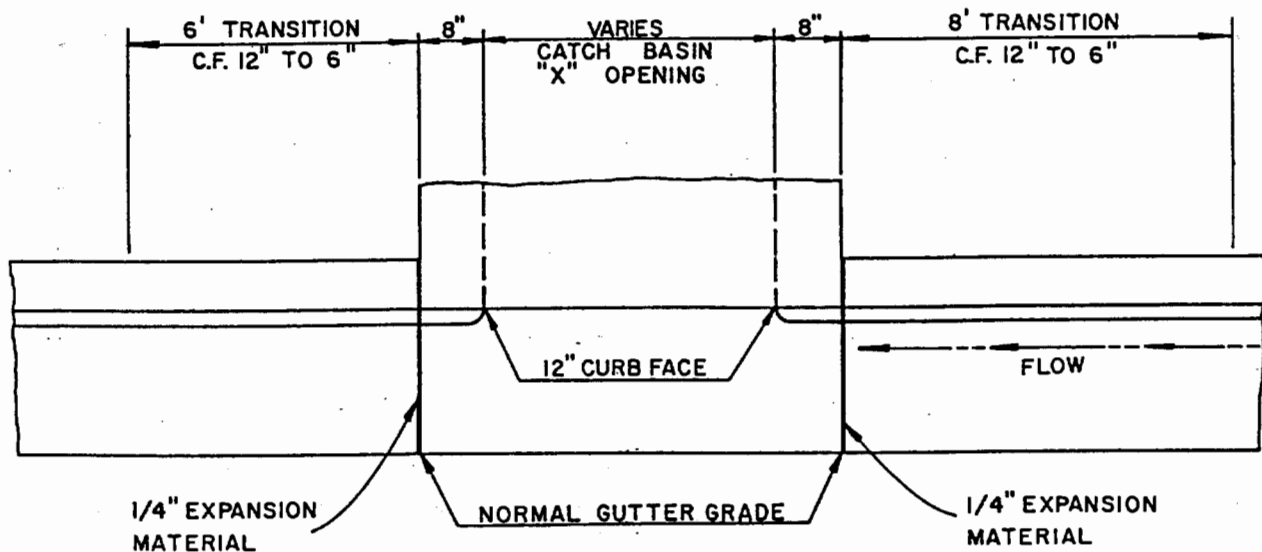
**CATCH BASIN
MOUNTAIN ROADS**

202a



NOTES:

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS B CONCRETE 6" THICK.
2. CURB AND GUTTER SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN AND CURB TRANSITIONS.



NOTES:

1. LOCAL DEPRESSION SHALL BE CONSTRUCTED OF CLASS B CONCRETE 6" THICK.
2. CURB AND GUTTER SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN AND CURB TRANSITIONS.

SAN BERNARDINO COUNTY TRANS. DEPARTMENT

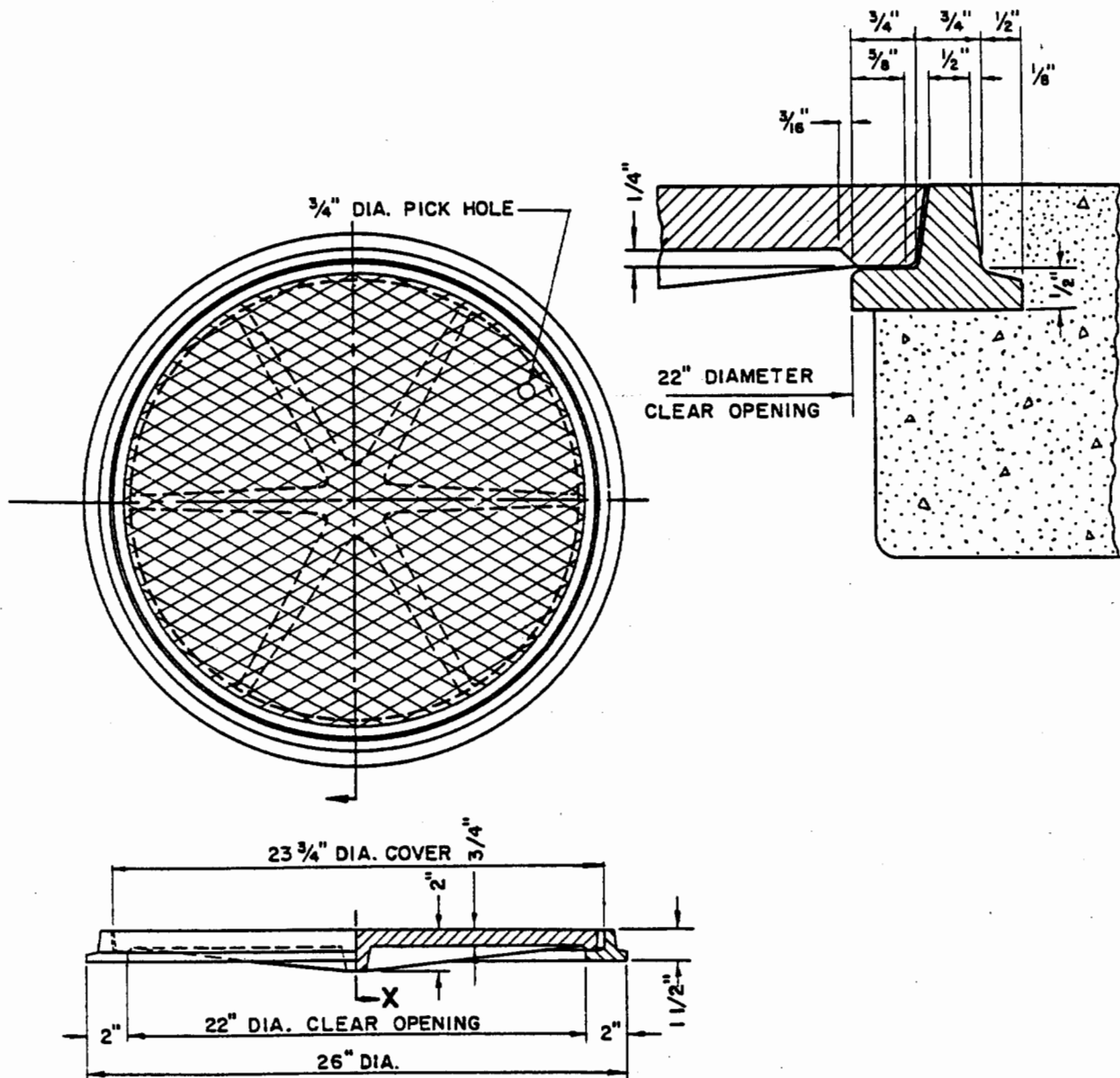
L.V.E. 12-74
R.D. A-8A

KEN A. Miller
Director of Transportation

LOCAL DEPRESSION

203 A.





MATERIAL: CAST IRON (ASPHALT COATED OR GALVANIZED)

NOTES

1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE.
2. TOTAL WEIGHT OF FRAME AND COVER APPROX. 130 LBS.
3. MINIMUM CLEAR OPENING 22" DIAMETER. ALL OTHER DIMENSIONS ARE NOMINAL.

ALHAMBRA A-1530 OR EQUIVALENT

SAN BERNARDINO COUNTY ROAD DEPARTMENT

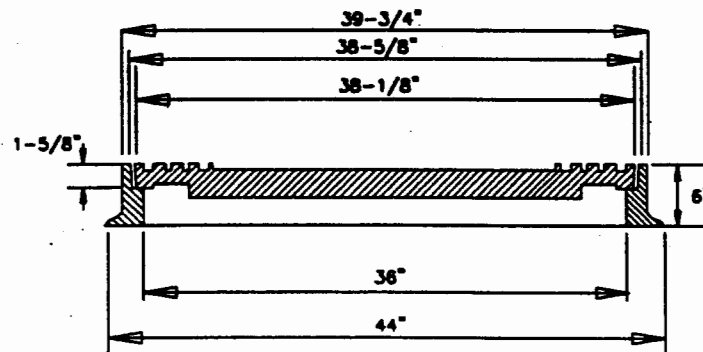
DATE: F.V.C. 7-65

L.V.F. 7-74

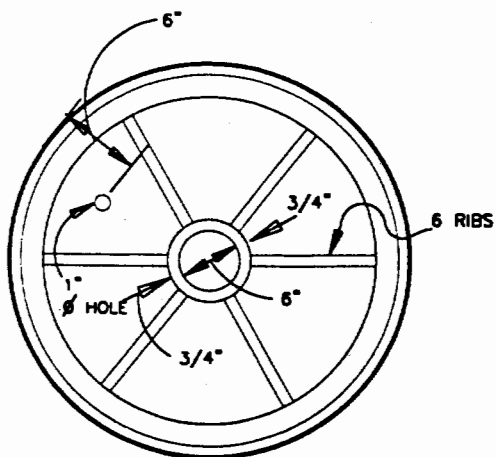
John R. Shone
COUNTY HIGHWAY ENGINEER

MANHOLE FRAME &
COVER-PARKWAY

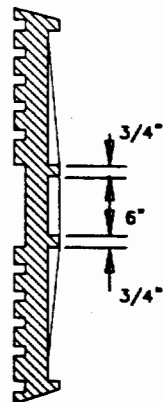
204



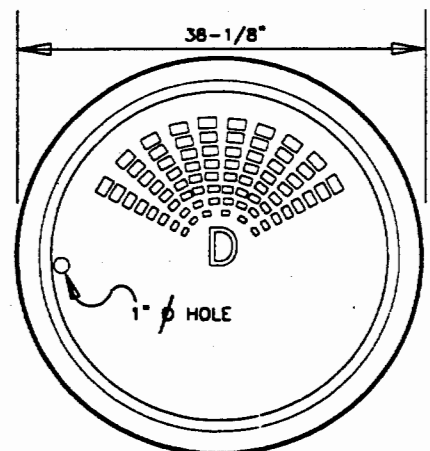
SECTION
FRAME AND COVER



BOTTOM VIEW



SECTION



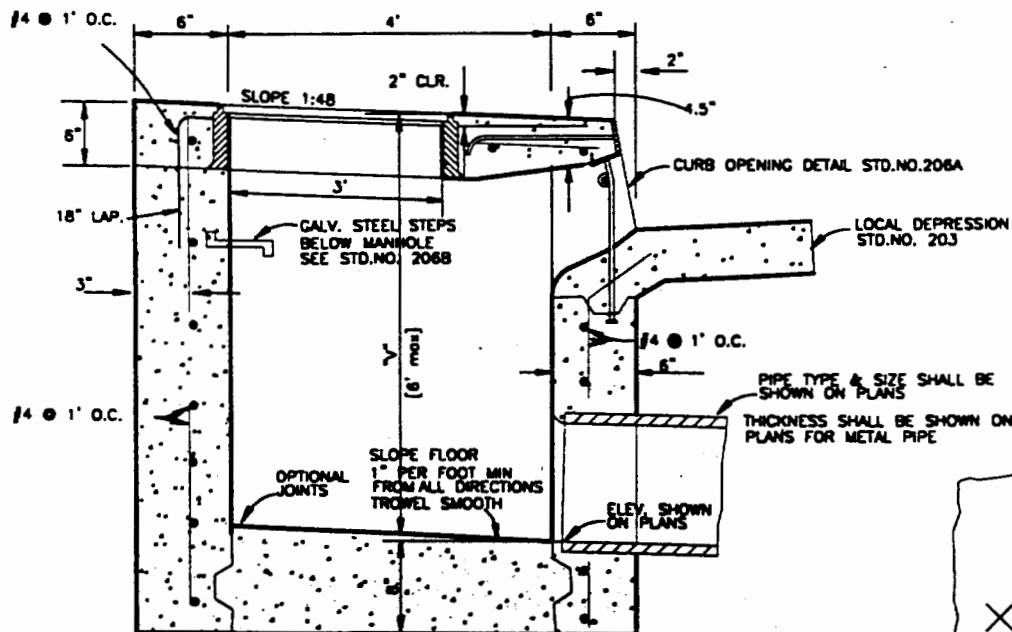
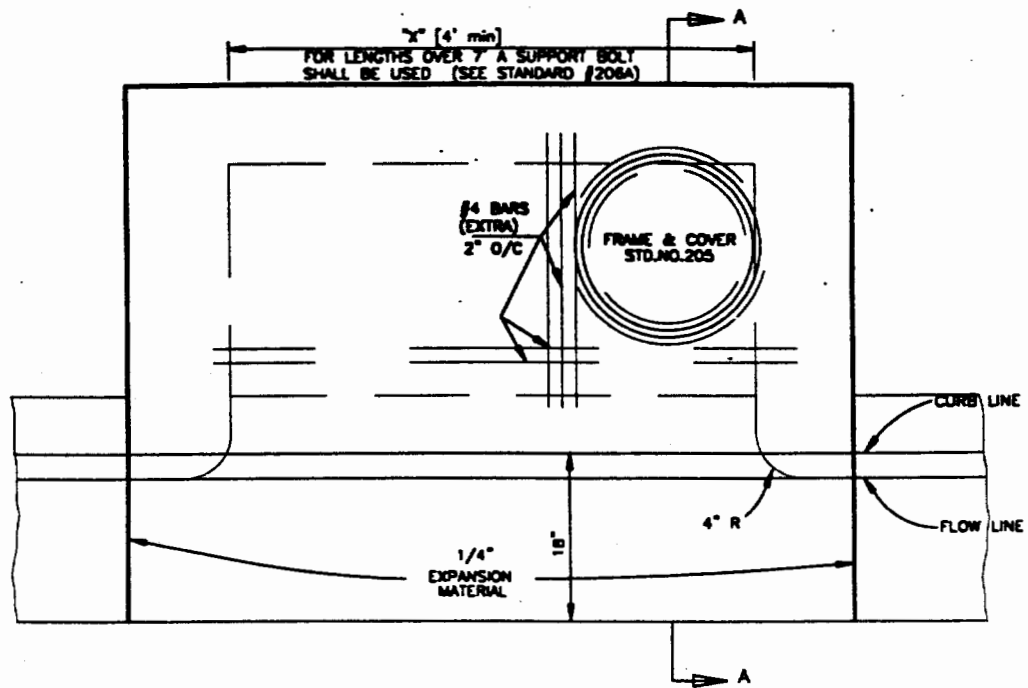
PLAN

COVER

NOTES:

1. SEATS OF FRAME AND COVER SHALL BE MACHINED TO PREVENT NOISE.
2. TOTAL WEIGHT OF FRAME AND COVERS - 580 lbs MIN.
3. MATERIAL: CAST IRON (BITUMINOUS COATED).
4. SURFACE OF LETTERS SHALL BE FLUSH WITH FINISHED SURFACE OF COVER

SAN BERNARDINO COUNTY TRANS. DEPT.		36" MANHOLE FRAME & COVER	205
	KEN A. MILLER Director of Transportation		

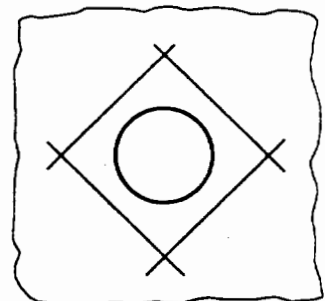


SECTION A-A

NOT TO SCALE

NOTES:

1. ALL REINFORCING SHALL BE #4 BARS @ 1' O.C. BOTH WAYS IN TOP SLAB AND WALLS.
2. CATCH BASIN SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
3. CURB & GUTTER ADJOINING CATCH BASIN SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTING TOP OF CATCH BASIN.



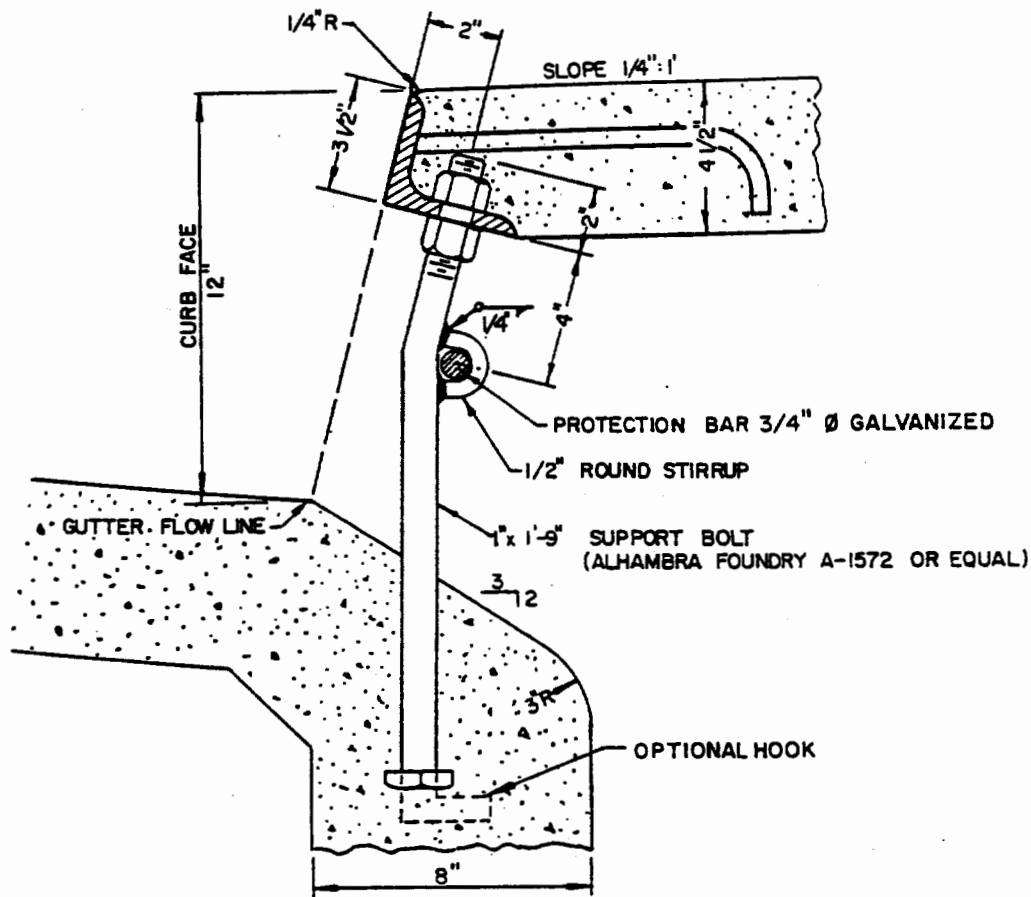
DETAIL OF REINFORCEMENT
AROUND PIPE

SAN BERNARDINO COUNTY TRANS. DEPT.

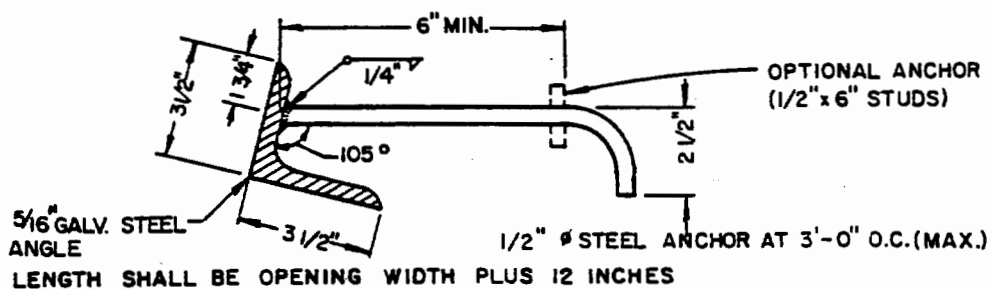
KEN A. MILLER
Director of Transportation

TYPE "A"
CATCH BASIN

206



STEEL ANGLE & SUPPORT BOLT DETAIL



STEEL ANGLE ANCHOR

NOTES:

1. A PLAIN ROUND GALVANIZED STEEL PROTECTION BAR 3/4" IN DIA. SHALL BE INSTALLED AND EMBEDDED 6" AT EACH END.
2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.(EXCEPT FRAME AND COVER)
3. SUPPORT BOLTS SHALL BE UNIFORMLY SPACED BUT NOT TO EXCEED 7' ON CENTER.
4. STEEL ANGLE SHALL BE BENT TO MATCH CURB ALIGNMENT.

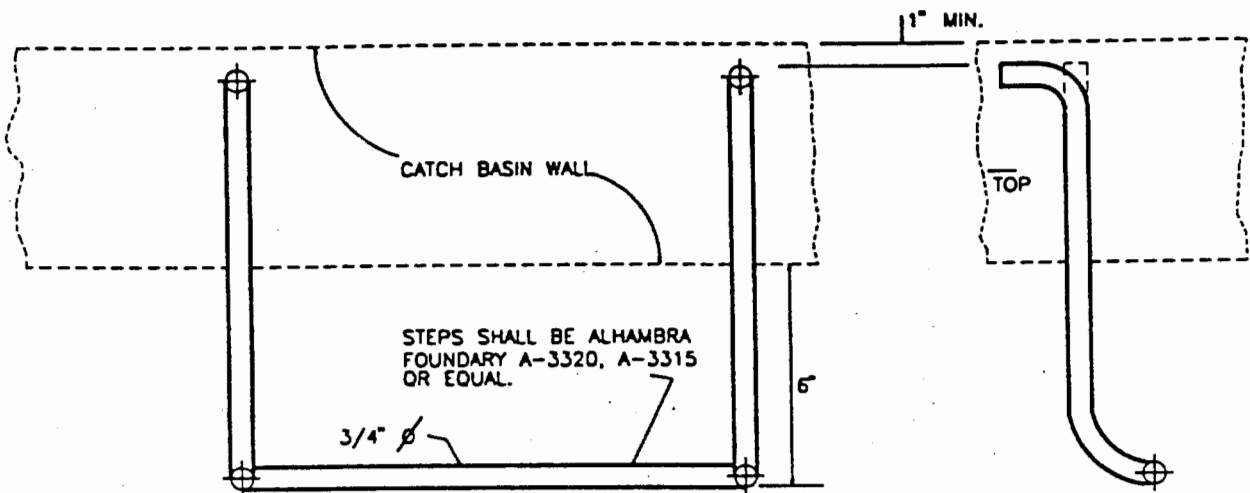
SAN BERNARDINO COUNTY TRANS.DEPT.

L.J.F.12-74

John R. Shone
Director of Transportation

CATCH BASIN
OPENING

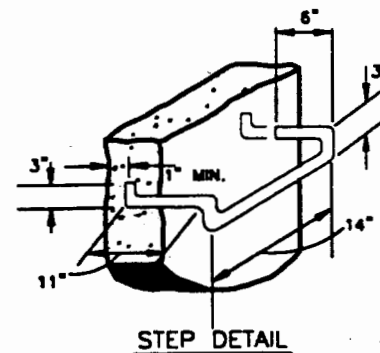
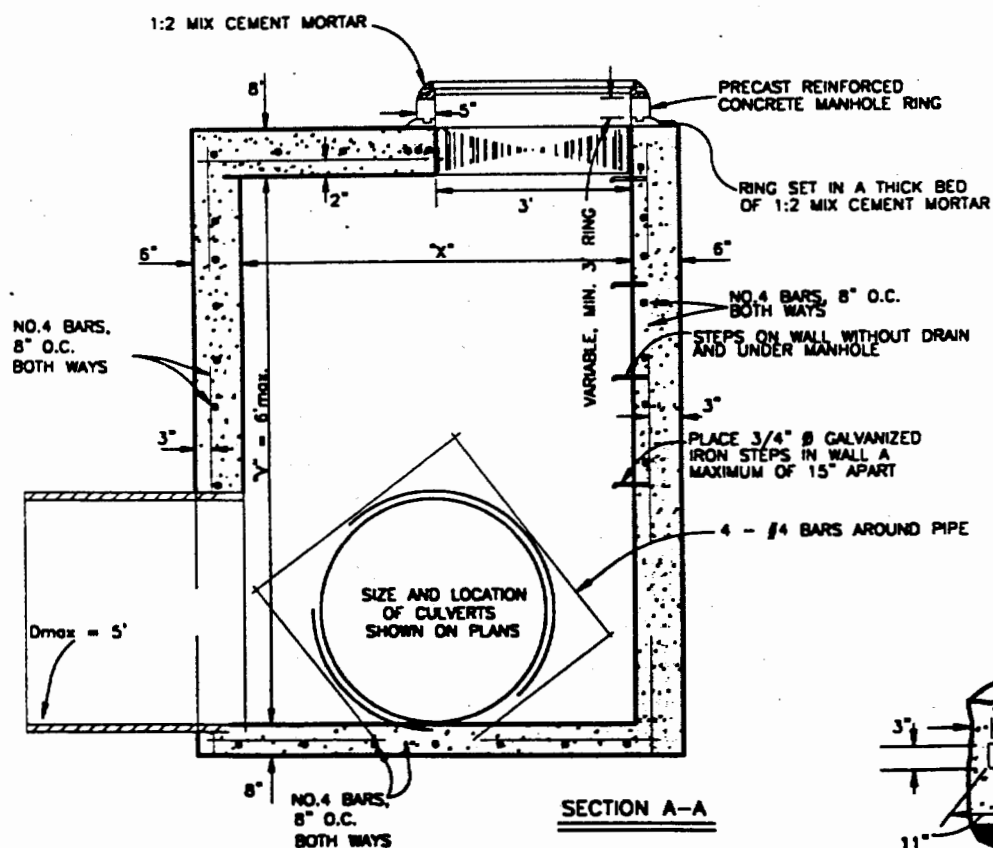
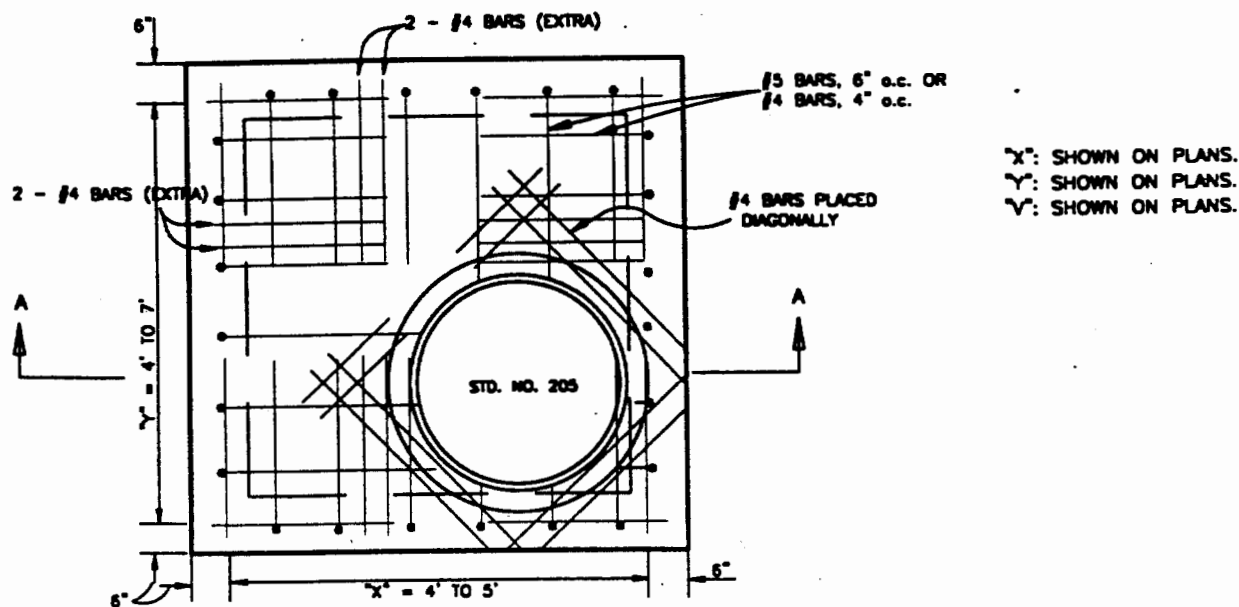
206a



NOTES:

1. STEPS - NONE REQUIRED WHERE "V" IS 3'-6" OR LESS. INSTALL ONE STEP 16"± ABOVE FLOOR WHEN "V" IS MORE THAN 3'-6" & LESS THAN 5'-0". WHERE "V" IS MORE THAN 5'-0" STEPS SHALL BE EVENLY SPACED @ 12"± INTERVALS FROM 16"± ABOVE THE FLOOR TO WITHIN 12"± FROM THE TOP OF THE BOX. PLACE STEPS IN WALL WITHOUT PIPE OPENINGS AND UNDER MANHOLE.

SAN BERNARDINO COUNTY TRANS. DEPT.		GALVANIZED STEEL STEP	206B
	KEN A. MILLER		
	Director of Transportation		



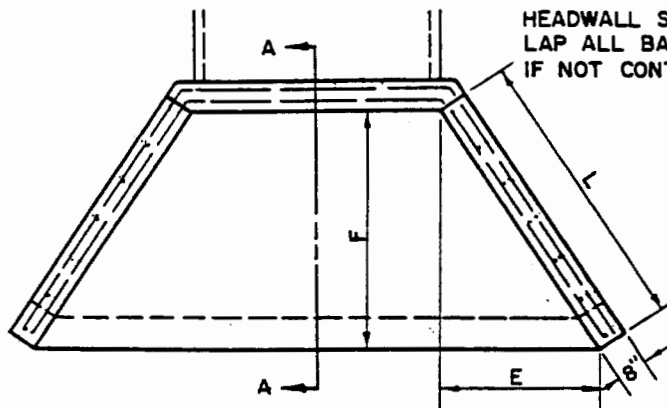
NOTES:

1. STORM DRAIN CLEANOUT SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
2. CLEARANCE FROM I.D. OF PIPE TO CLEANOUT WALL SHALL BE 4" MIN.
3. APPROVED PRECAST CONCRETE MANHOLE SHAFT RINGS WILL BE ACCEPTED IN LIEU OF CAST-IN-PLACE SHAFT

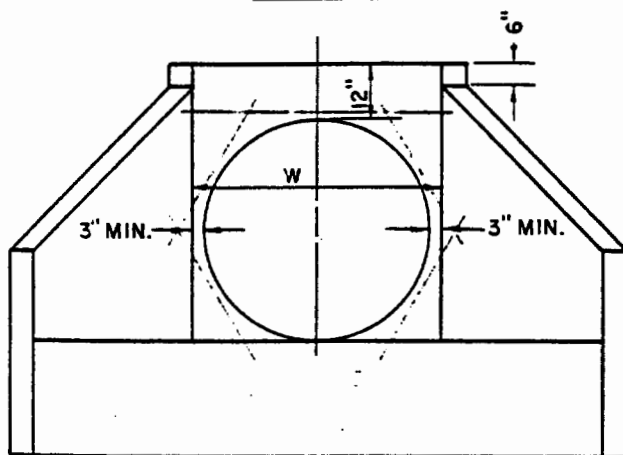
SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

STORM DRAIN CLEANOUT 208

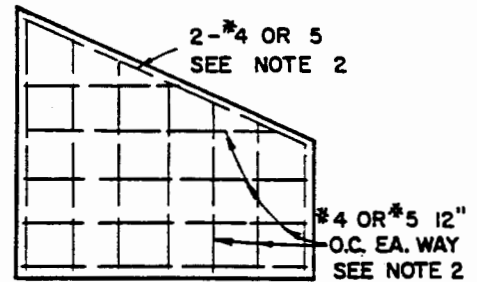


PLAN

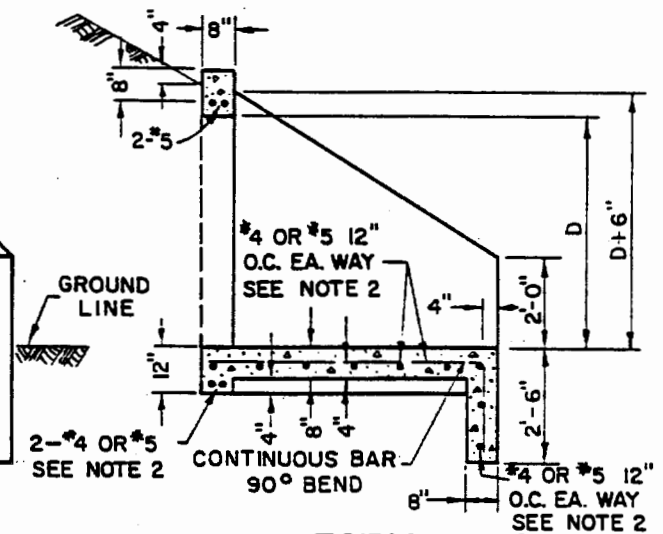


ELEVATION

HEADWALL SHALL BE MONOLITHIC.
LAP ALL BARS AT CORNERS 30 DIAMETERS
IF NOT CONTINUOUS.



REINFORCING DETAIL



SECTION A-A

DIMENSIONS

PIPE DIAM.	L	E	F	W
24"	4'-9"	2'-8"	4'-0"	2'-6"
30"	5'-5"	3'-0"	4'-6"	3'-0"
36"	6'-0"	3'-4"	5'-0"	3'-8"
42"	6'-7"	3'-8"	5'-6"	4'-2"
48"	7'-3"	4'-0"	6'-0"	4'-10"
54"	8'-2"	4'-6"	6'-9"	5'-4"

NOTES:

1. HEADWALL SHALL BE CONSTRUCTED OF CLASS A CONCRETE.
2. REINFORCING STEEL SHALL BE NO. 4 BARS FOR "W" UP TO 60". ABOVE "W"=60" NO. 5 BARS SHALL BE USED. 2" MIN CLEARANCE, 30 DIAMETER LAP, ALL STEEL.
3. ADJACENT SLOPES SHALL BE $1\frac{1}{2}$ TO 1 OR FLATTER.
4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS $1\frac{2}{3}$ DIAMETERS APART.
5. ALL EXPOSED CORNERS TO BE ROUNDED $\frac{3}{4}$ " RADIUS.
6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.

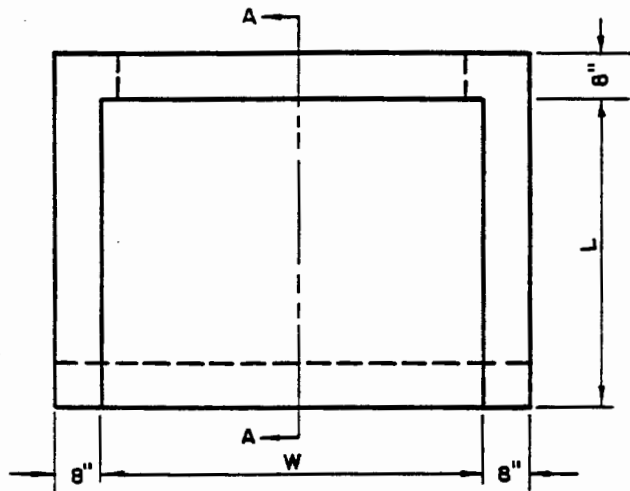
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.11.75

M. A. Nicholas
COUNTY ENGINEER

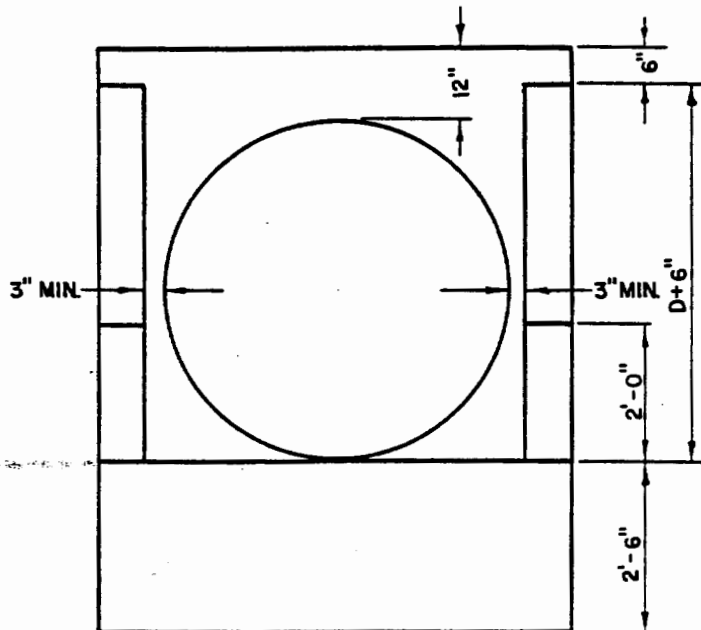
HEADWALL
WING - TYPE

209



PLAN

DIMENSIONS		
PIPE DIAM	L	W
24"	4'-0"	2'-6"
30"	4'-6"	3'-0"
36"	5'-0"	3'-8"
42"	5'-6"	4'-2"
48"	6'-0"	4'-10"
54"	6'-9"	5'-4"



ELEVATION

NOTES:

1. REINFORCING STEEL IN WALLS AND BASE SHALL BE THE SAME AS STD. NO. 209.
2. NOTES SHALL BE THE SAME AS STD. NO. 209.
3. SECTION A-A IS THE SAME AS STD. NO. 209.

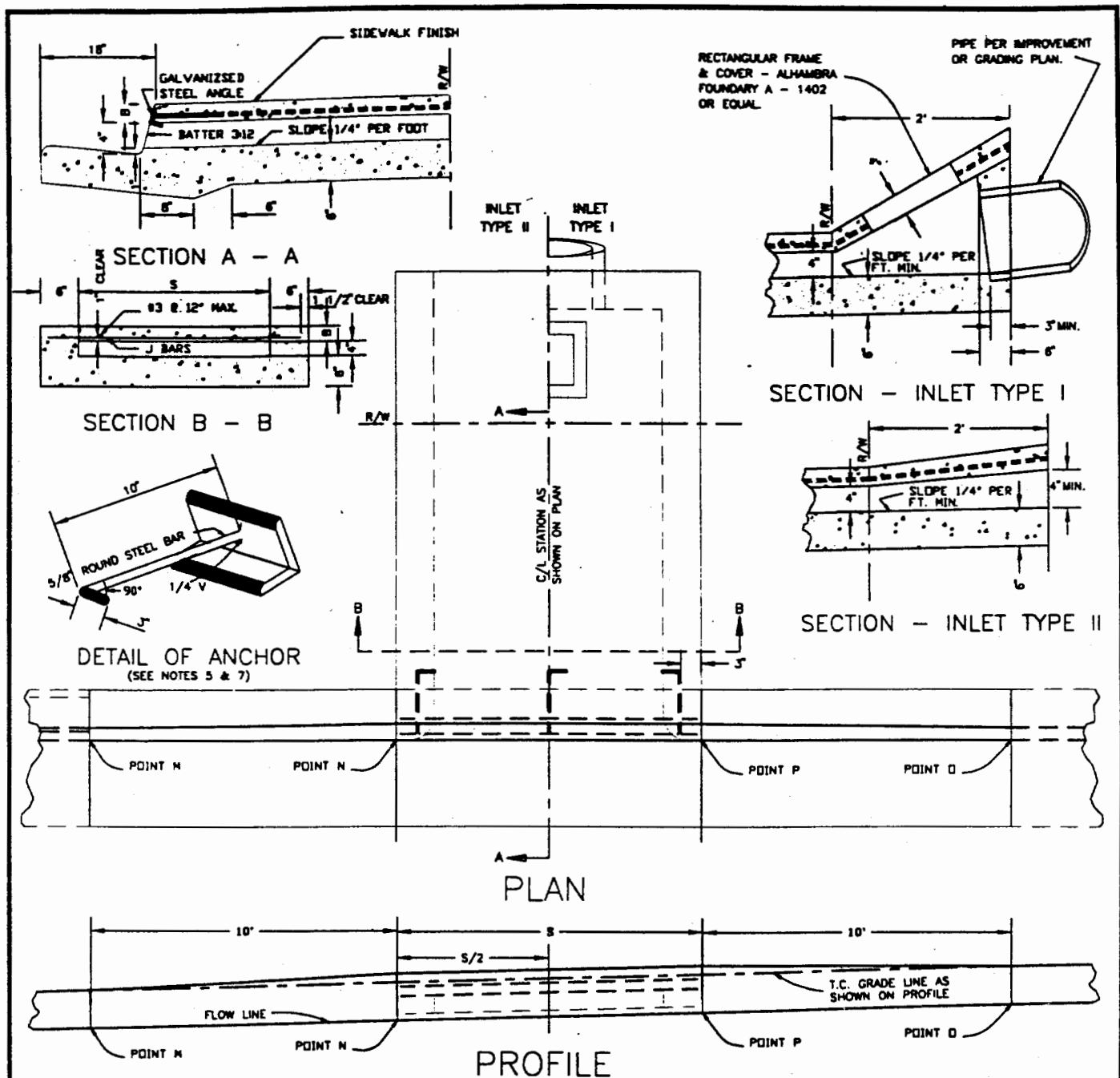
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 3.11.65

M. A. Nicholas
COUNTY ENGINEER

HEADWALL
'U'-TYPE

209A



NOTES:

1. FLOOR OF BOX TO BE TROWELED SMOOTH.
2. WHEN THE TOE OF SLOPE IS WITHIN THE R/W, INLET TYPE I BEGINS AT THE TOE, RATHER THAN AT THE R/W LINE.
3. FOR OPEN DITCH APPROACH (TYPE II) THE 2" OR MORE IS FROM THE R/W LINE.
4. TOP OF INLET STRUCTURE (TYPE I OR II) TO BE FLUSH WITH ADJACENT SIDEWALK WHERE PRACTICAL.
5. A HEADED STEEL STUD 5/8" X 3/8" WITH HEAD 0.1" ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
6. NORMAL CURB AT POINTS M AND Q. B + 5" AT POINTS N AND P.
7. THE 3" LEG OF THE INTERIOR ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.

S	B	GALVANIZED STEEL ANGLE	ANCHOR	J BAR		
				SIZE	SPACING	LENGTH
1'-0"	3"	2 1/2" X 2" X 3/8"	2	#3	7"	1'-9"
1'-6"	"	"	"	"	"	2'-3"
2'-0"	"	"	"	"	"	2'-9"
2'-6"	"	"	"	"	"	3'-3"
3'-0"	"	"	3	"	"	3'-9"
3'-6"	"	"	"	"	6"	4'-3"
4'-0"	"	"	"	"	5"	4'-9"
4'-6"	4"	3 1/2" X 3" X 1/2"	"	"	6 1/2"	5'-3"
5'-0"	"	"	"	"	5"	5'-9"
5'-6"	"	"	"	"	4"	6'-3"
6'-0"	"	"	"	"	3 1/2"	6'-9"

STD5\210

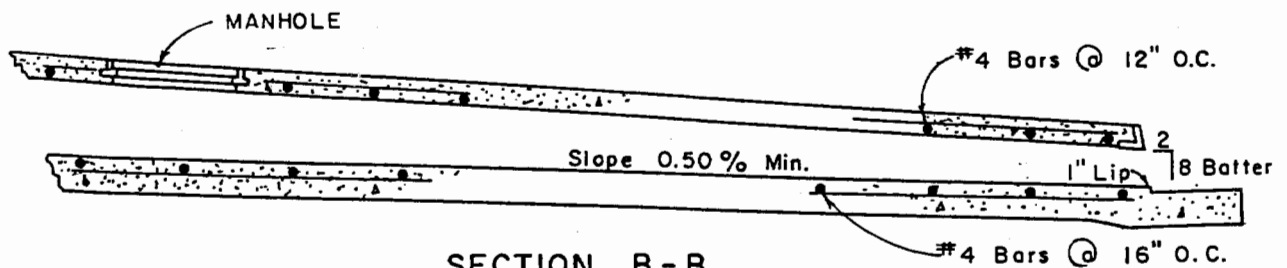
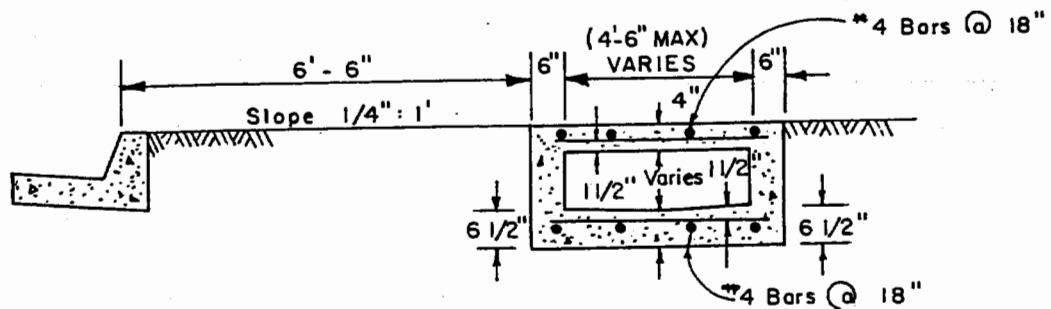
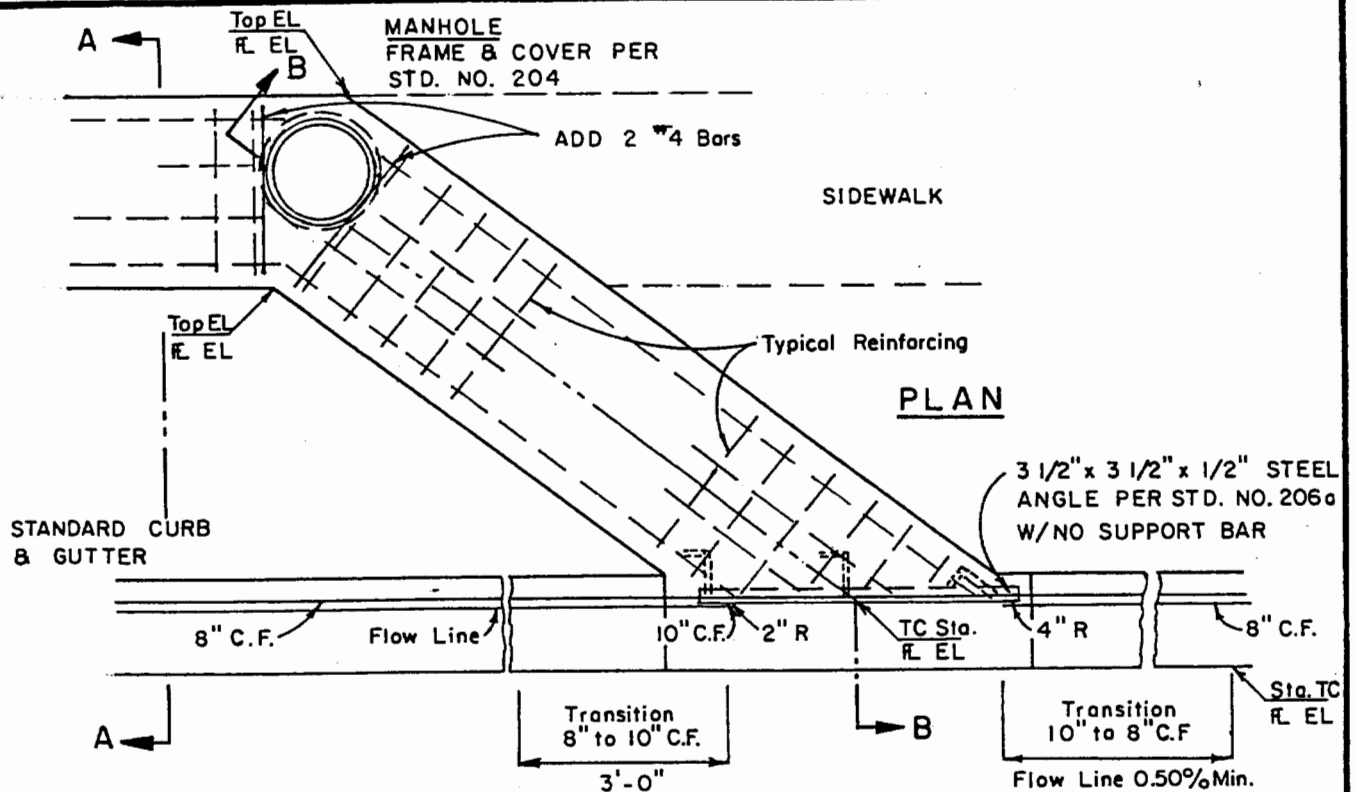
01/31/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

CURB OUTLET
STRUCTURE

210



NOTES :

1. CONCRETE SHALL BE CLASS "A"
2. FLOOR OF STRUCTURE SHALL BE GIVEN A STEEL TROWEL FINISH.
3. TOP OF BOX TO HAVE SIDEWALK FINISH.
4. ANCHORS SHALL BE SYMMETRICALLY SPACED AND NOT TO EXCEED 4' BETWEEN CENTERS, AND BE PLACED 4 1/2" FROM EACH END OF THE STEEL ANGLE, A MINIMUM OF 3 ANCHORS IS REQUIRED.

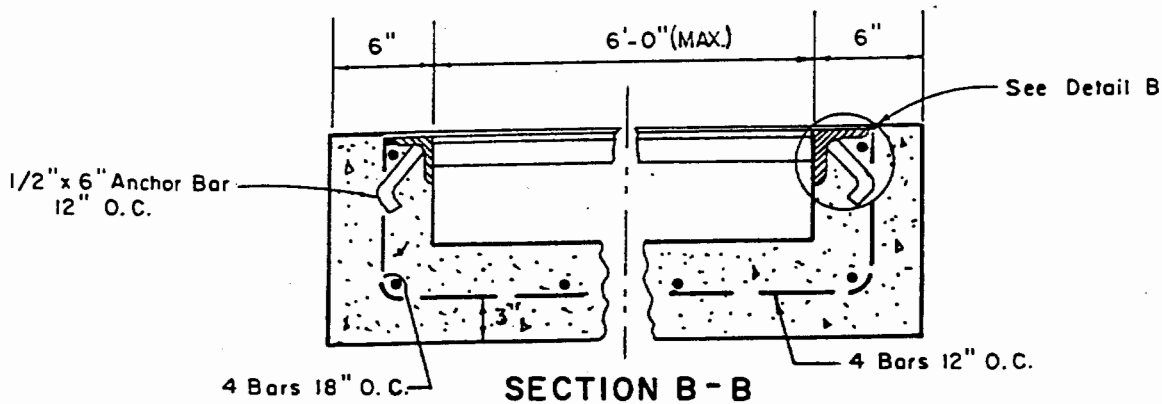
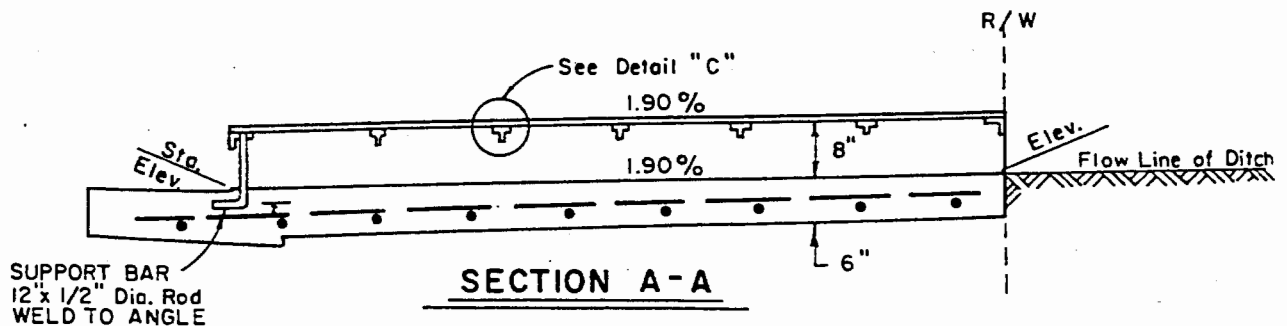
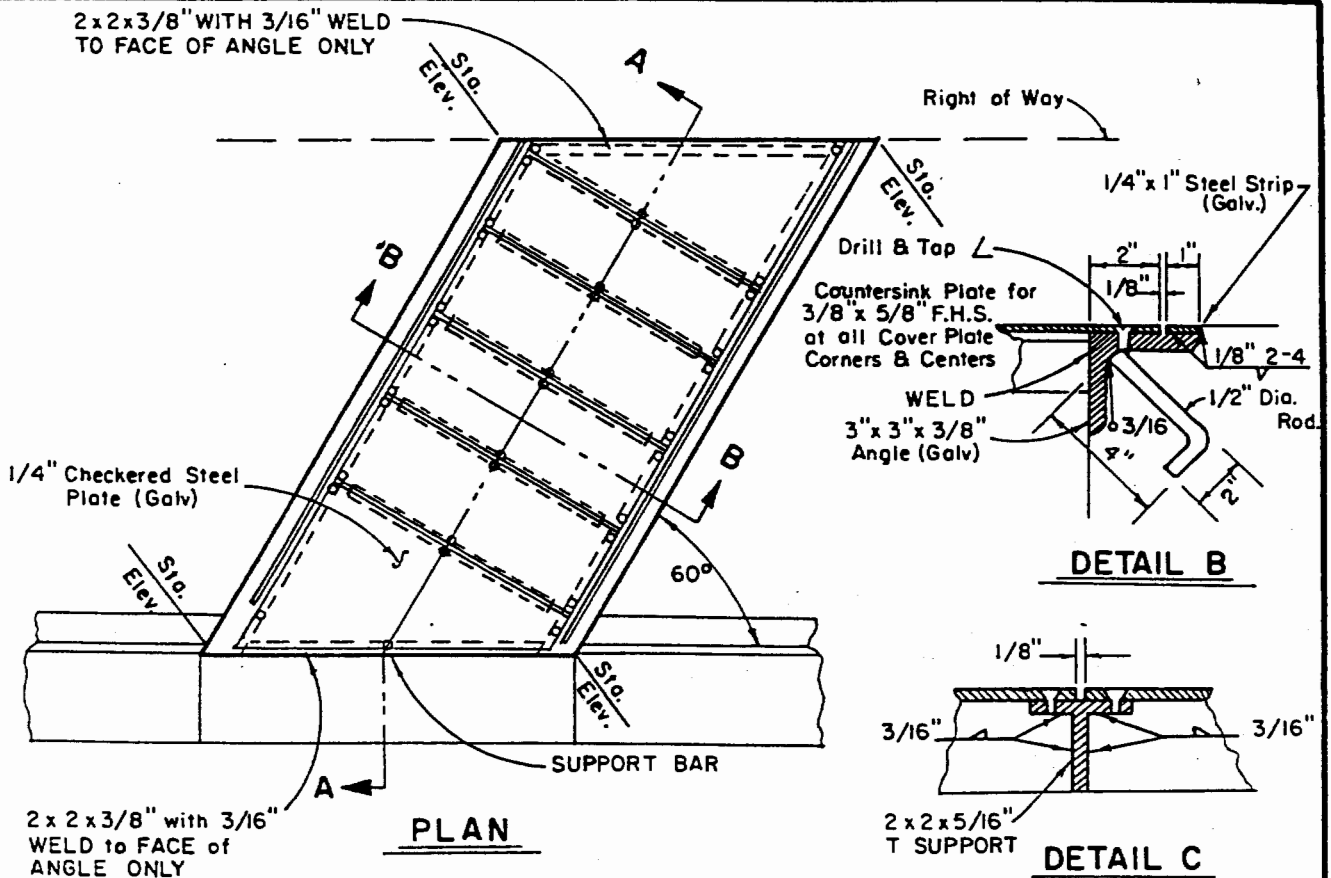
SAN BERNARDINO COUNTY TRANS. DEPT.

RO 8-89

KEN A. MILLER
Director of Transportation

OUTLET STRUCTURE

210A



NOTES:

1. ALL CONCRETE TO BE CLASS "A"
2. ALL STEEL EXCEPT REINFORCING BARS SHALL BE GALVANIZED AFTER FABRICATION.

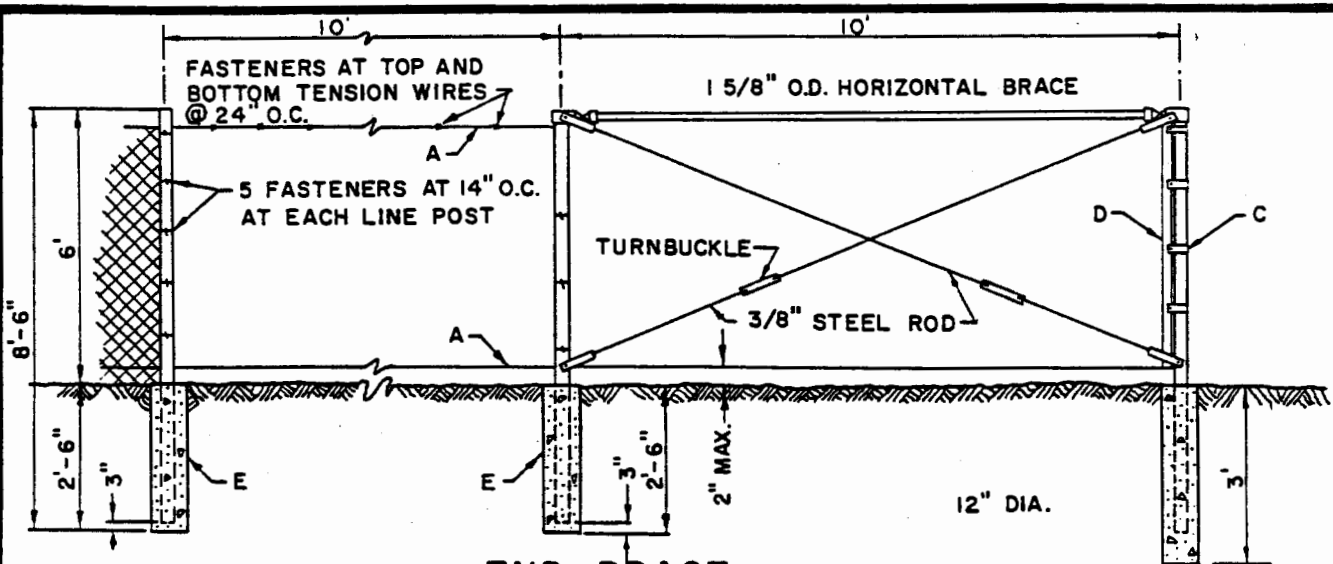
SAN BERNARDINO CO. TRANS. DEPT.

120 8-89

KEN A. MILLER
Director of Transportation

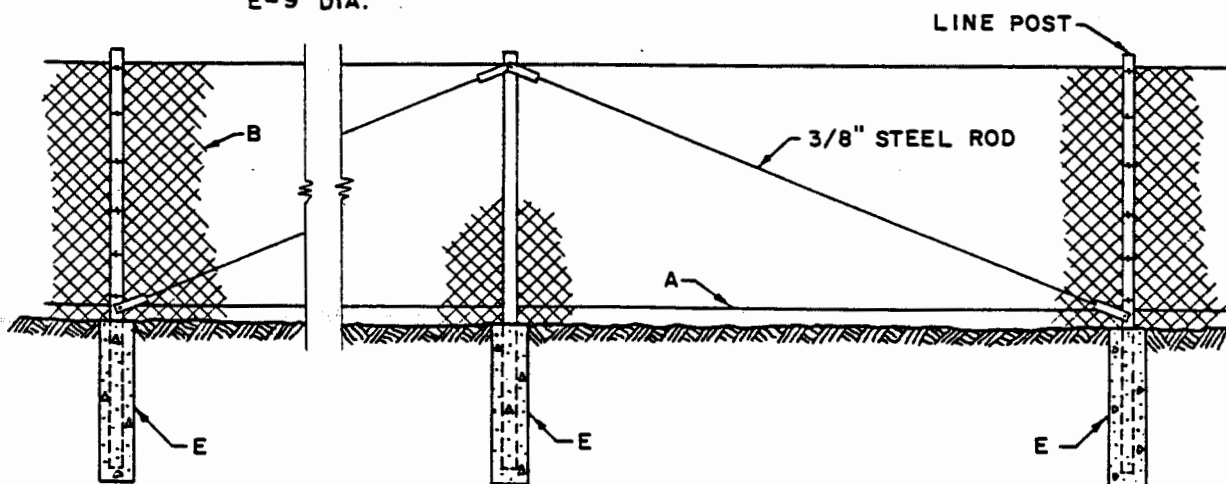
PARKWAY CULVERT
W / STEEL PLATE COVER

211



END BRACE

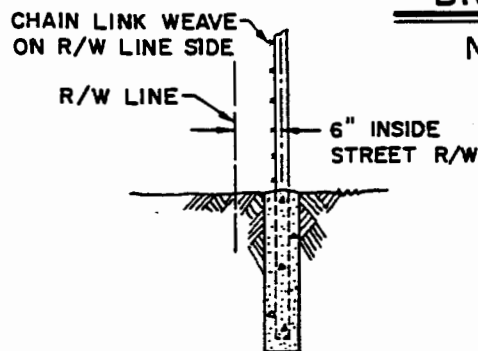
- A-TENSION WIRE NUMBER 10 GAGE MINIMUM
 B-CHAIN LINK FENCE FABRIC NUMBER 9 GAGE MINIMUM
 C-1/8" X 1" BAND AT 1' INTERVAL
 D-3/16" X 3/4" X 6' STEEL TENSION BAR
 E-9" DIA.



BRACE EVERY 500'

NOTES:

1. EACH POST SHALL BE CAPPED WITH A MALLEABLE IRON POST CAP, EXCEPT WHERE BARBED WIRE IS TO BE USED. THEN EACH POST SHALL BE CAPPED WITH A GALVANIZED MALLEABLE IRON 3 STRAND BARBED WIRE ARM & CAP.
2. MATERIALS AND CONSTRUCTION OF FENCE SHALL CONFORM TO STATE OF CALIFORNIA, STANDARD SPECIFICATIONS, UNLESS SHOWN OTHERWISE.



DETAIL

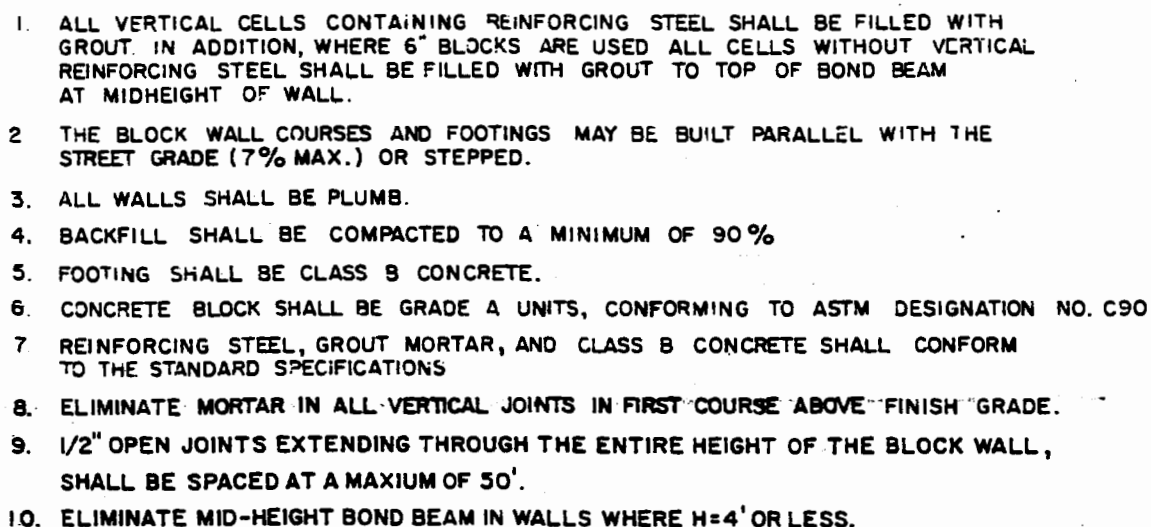
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65

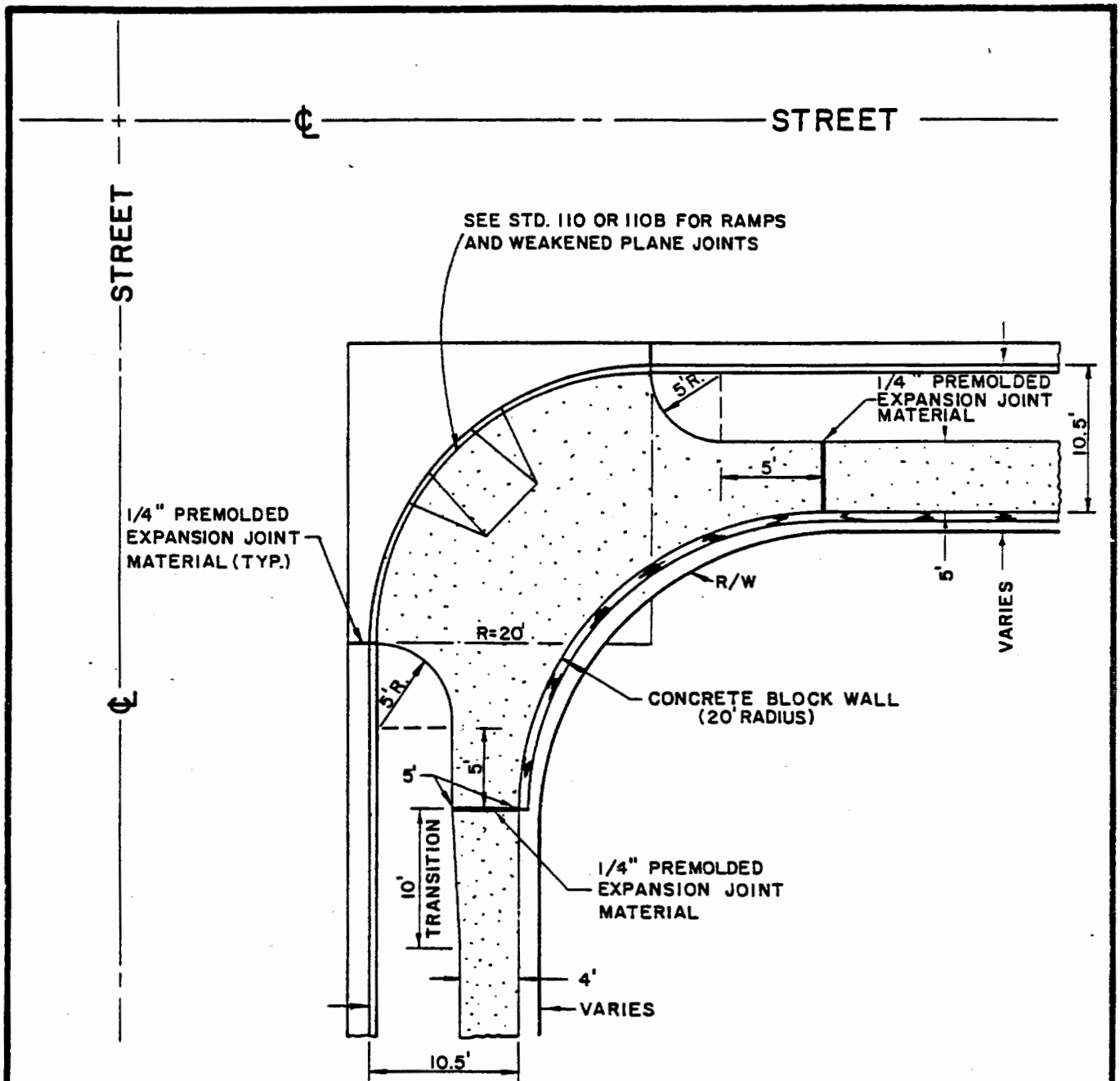
M. A. Nicholas
 COUNTY ENGINEER

RIGHT OF WAY
 FENCE

300



301 a



NOTE:

1. THE BLOCK WALL HEIGHT MAY BE VARIED AROUND THE RETURN IF SHOWN ON THE IMPROVEMENT PLANS.

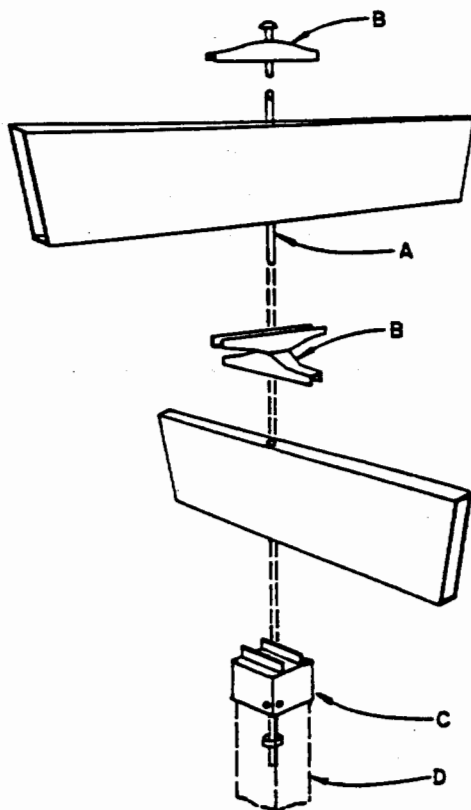
SAN BERNARDINO COUNTY TRANS. DEPARTMENT

DATE: F.V.C. 6-65
APP. MAR. 1975

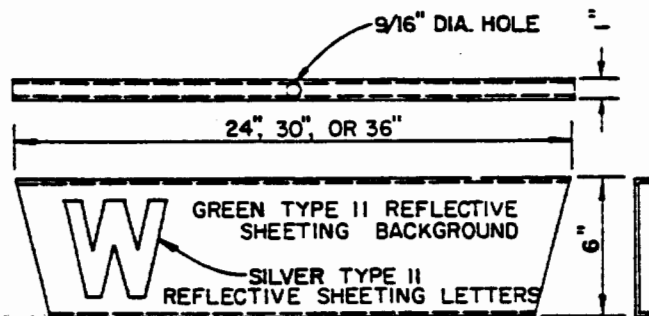
John R. Shone
DIRECTOR OF TRANSPORTATION

BLOCKWALL LOCATION
AT INTERSECTION

302



ASSEMBLY



- A $\frac{5}{8}$ "X15" CADMIUM PLATED CARRIAGE BOLT.
- B ORNAMENTAL TOP SHALL BE 14 GAGE ANODIZED ALUMINUM. CENTER CROSS SADDLE SHALL BE ONE PIECE CAST ANODIZED ALUMINUM.
- C ONE PIECE 2" CAST ANODIZED ALUMINUM POST CAP WITH FOUR $\frac{3}{8}$ " STAINLESS STEEL ALLEN HEAD SET SCREWS.
- D 2" SQ. STEEL POST 8'-12' LONG INSTALLED WITH A DRIVEN 2 $\frac{1}{2}$ " SQ. STEEL BREAKAWAY BASE 3' LONG AS PER COUNTY INSTALLATION STD. 303b.

DESIGN: EACH FOUR-WAY UNIT SHALL CONSIST OF TWO DOUBLE FACE SIGNS WITH STREET NAMES MOUNTED AT RIGHT ANGLES WITH CENTER ROD ASSEMBLY.

BRACKET ASSEMBLY: THE POST CAP, ORNAMENT, AND CENTER ROD ASSEMBLY SHALL BE MADE TO MOUNT ON 2" SQ. GALVANIZED POST. THE CENTER ROD SHALL BE A $\frac{5}{8}$ " CADMIUM PLATED CARRIAGE BOLT. HEAD OF BOLT SHALL FORM TOP OF ORNAMENT. BOLT SHALL EXTEND THROUGH SIGNS AND FASTEN WITH NUT INSIDE OF POST CAP. POST CAP SHALL BE DEEPLY GROOVED TO SECURELY HOLD SIGN FROM TWISTING AND SHALL BE SECURED TO THE PIPE WITH THREE $\frac{3}{8}$ " STAINLESS STEEL ALLEN HEAD SET SCREWS.

MATERIAL: SIGN SHALL BE GREEN ANODIZED ALUMINUM EXTRUSION OF 6063T-4 ALLOY MATERIAL. ALL ANODIZING SHALL CONFORM WITH ALUMILITE SPECIFICATION #215-R1.

FINISH: SIGN FACES SHALL BE FHWA TYPE II REFLECTIVE SHEETING. THE TRANSPARENT SCREEN PROCESS COLOR SHALL BE AS RECOMMENDED BY THE REFLECTIVE SHEETING MANUFACTURER. APPLICATION OF THE REFLECTIVE SHEETING TO THE SIGN SHALL BE BY METHODS AS APPROVED BY THE REFLECTIVE SHEETING MANUFACTURER.

LETTERING: STREET NAMES SHALL BE 4" HIGH. EACH NAME SHALL BE INDIVIDUALLY LAID OUT TO FIT EITHER THE 24" OR 30" SPACE. THE LETTERS SHALL BE OF THE ROUNDED TYPE STYLE CONFORMING WITH THE STANDARD ALPHABET FOR HIGHWAY SIGNS DESIGNED BY THE U.S. PUBLIC ROADS ADMINISTRATION. LETTERS SHALL BE FHWA TYPE II REFLECTIVE SHEETING.

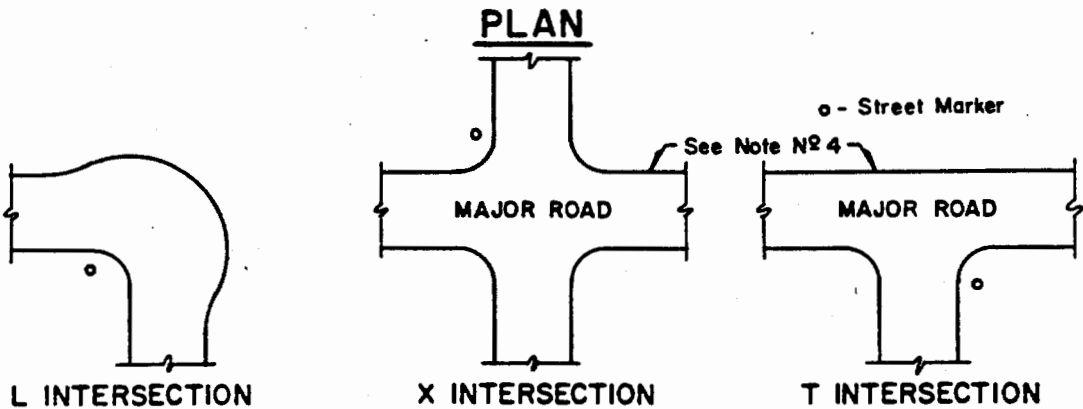
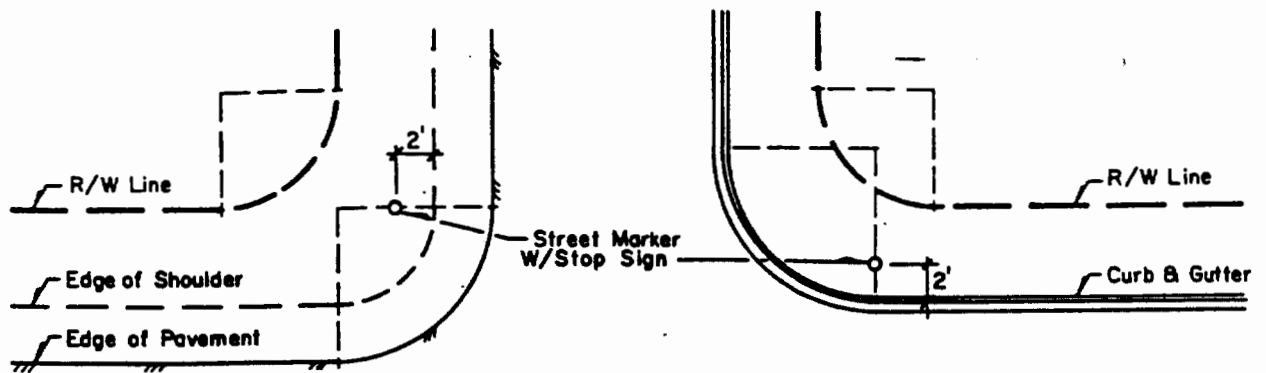
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: J.E.M. 11-65
R.A.J. 10-81

M. A. Nicholas
COUNTY ENGINEER

STREET MARKER

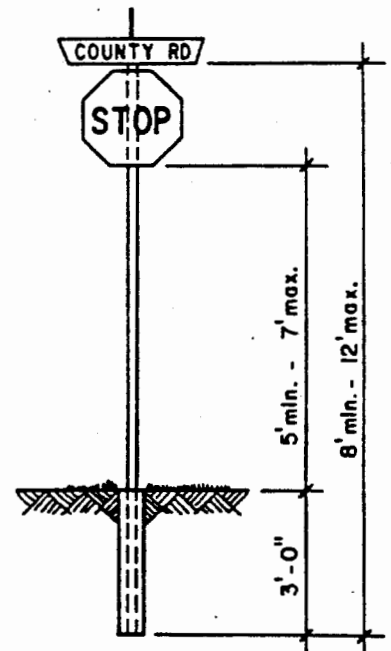
303



TYPICAL LOCATION

NOTES:

1. Marker To Be Set On County Right Of Way.
2. Location Of Marker Shown Is Approximate.
3. Markers To Be Visible For A Distance Of 150 Feet.
4. If Either Road Is Divided Into 4 Lanes Or More (Major Road), Additional Markers Will Be Required.
5. Street Markers Located At Major Roads Will Be Mounted On 12 Foot Posts To Accommodate A Stop Sign.



ELEVATION

SAN BERNARDINO COUNTY TRANS. DEPT.

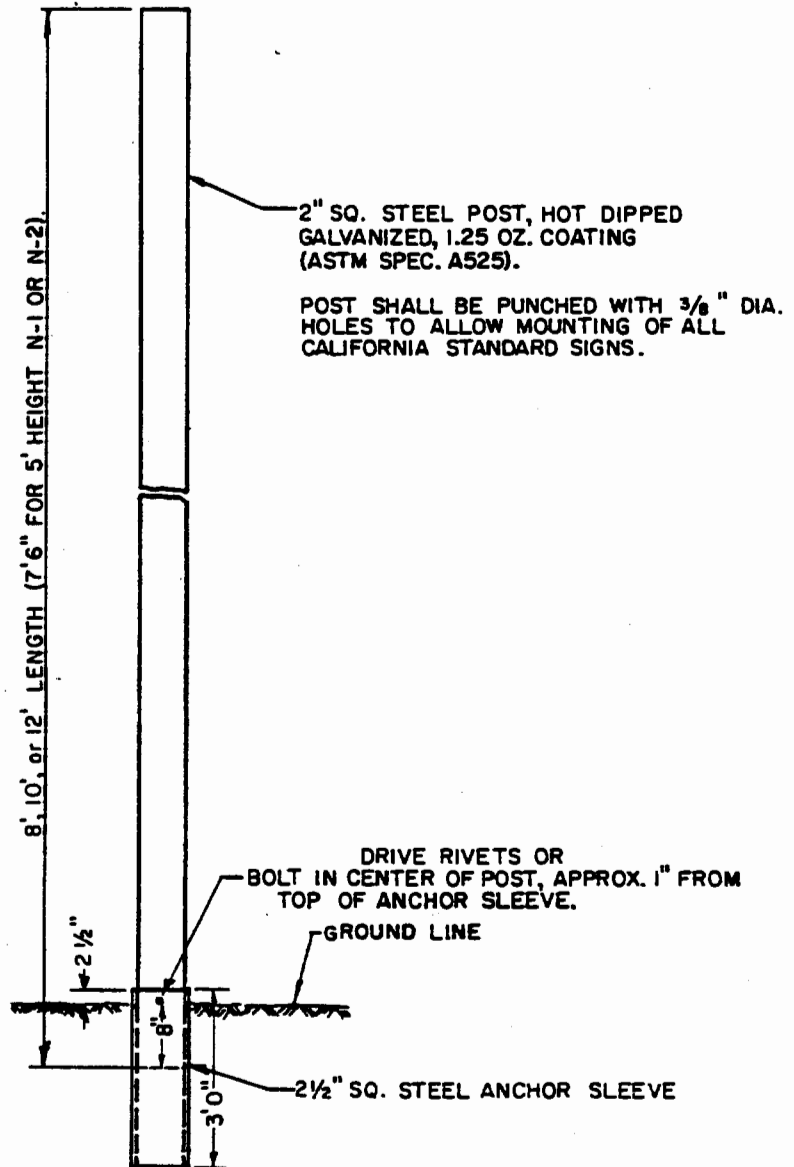
OCT. 5, 1993 v.h.c.

REV. 3/1/94

KEN A. MILLER
Director of Transportation

STREET MARKER

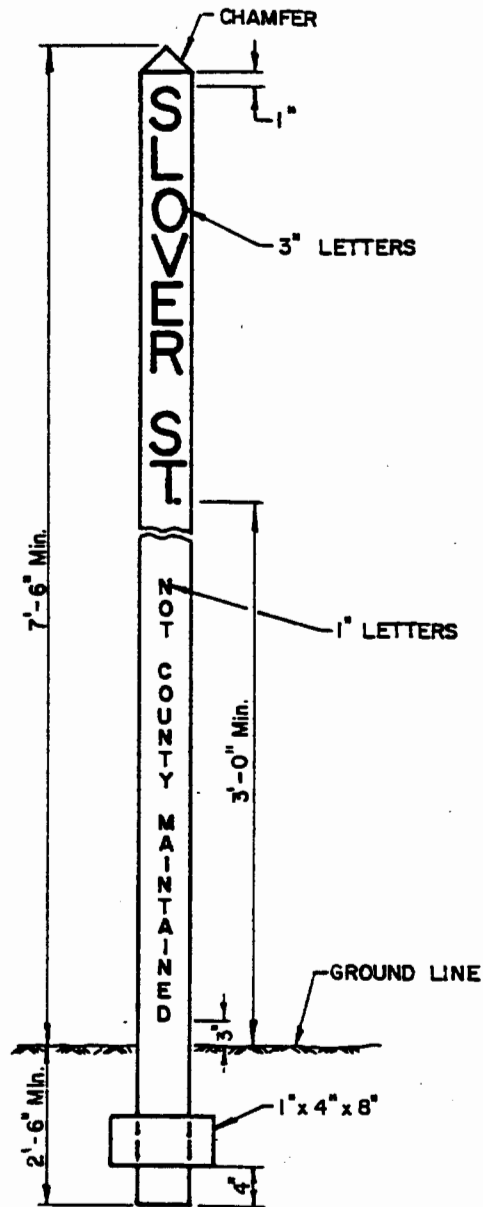
303a



NOTES:

1. SEE STANDARD NO. 303a FOR MARKER LOCATIONS.
2. POST SHALL BE 2" SQ. STEEL AS SHOWN AND STATED.
3. ANCHOR SLEEVE SHALL BE 2 1/2" SQ. STEEL HOT DIPPED GALVANIZED AFTER FABRICATION (ASTM SPEC. A-123).
4. SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY STANDARD 303.

SAN BERNARDINO COUNTY ROAD DEPARTMENT		STREET MARKER POST INSTALLATION	303 b
H.G. 1-71 R.O.R. 10-81	M. A. Nicholas COUNTY ENGINEER		



NOTES:

1. SEE STANDARD NO 303a FOR MARKER LOCATIONS.
2. POST SHALL BE 4" x 4" CONSTRUCTION HEART STRUCTURAL REDWOOD, S.4 S. AND/OR EQUIVALENT AS APPROVED BY STANDARD SPECIFICATIONS.
3. ALL WOOD SURFACES SHALL BE GIVEN ONE COAT OF WOOD PRIMER AND TWO COATS OF ENAMEL; SIGN POST YELLOW, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
4. LETTERS SHALL BE STENCILED WITH BLACK PAINT ON ALL SIDES.
5. STREET NAME LETTERS SHALL BE 3" HIGH AND NOT COUNTY MAINTAINED LETTERS 1" HIGH ROUNDED TYPE STYLE CONFORMING WITH THE STANDARD ALPHABET FOR HIGHWAY SIGNS DESIGNED BY THE U.S. PUBLIC ROADS ADMINISTRATION.

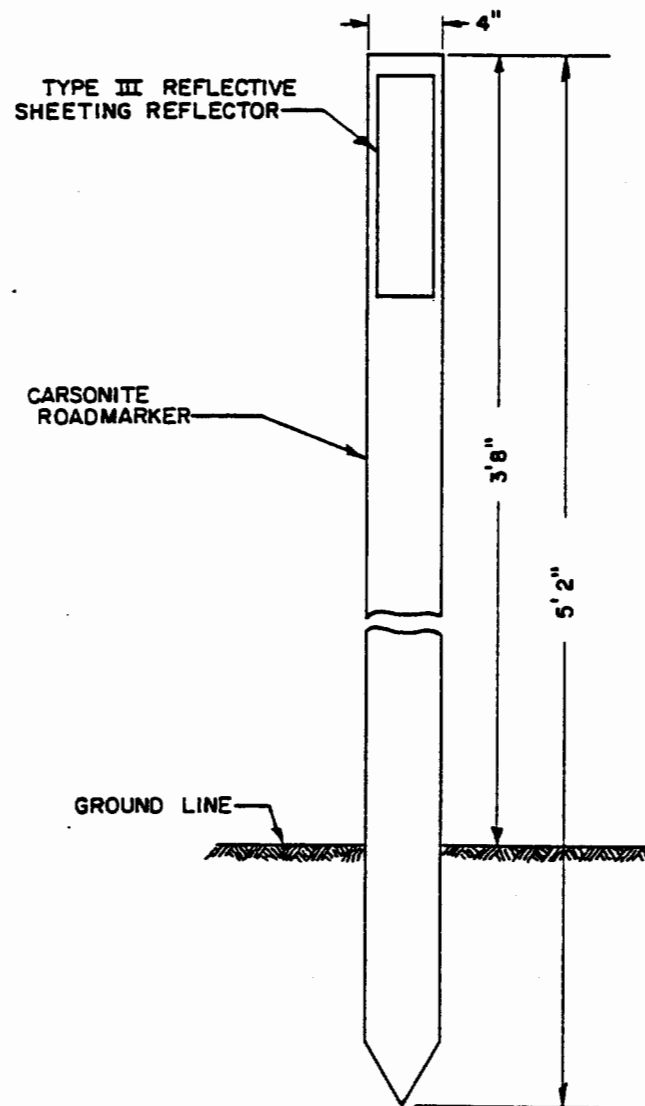
SAN BERNARDINO COUNTY ROAD DEPARTMENT

H.G. 1-71

M. A. Nicholas
COUNTY ENGINEER

STREET MARKER
DESERT ROAD - 2 1/2 ACRE

303c



NOTES:

- I. MARKER SHALL BE A CARSONITE ROADMARKER CONSISTING OF A CARSONITE POST WITH A 3"X12" FHWA TYPE III REFLECTIVE SHEETING REFLECTOR.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

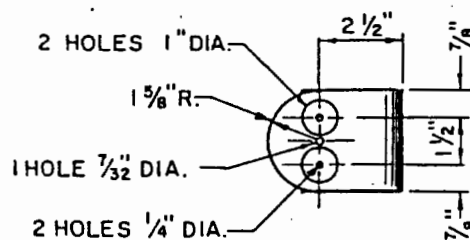
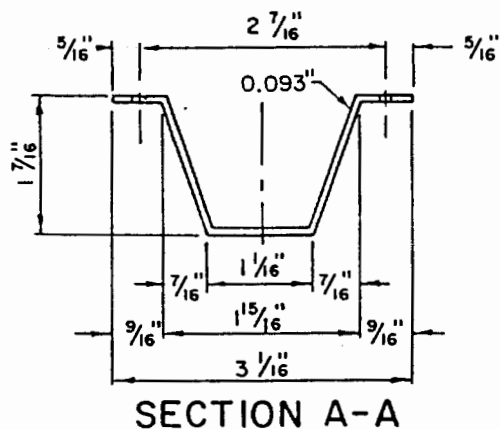
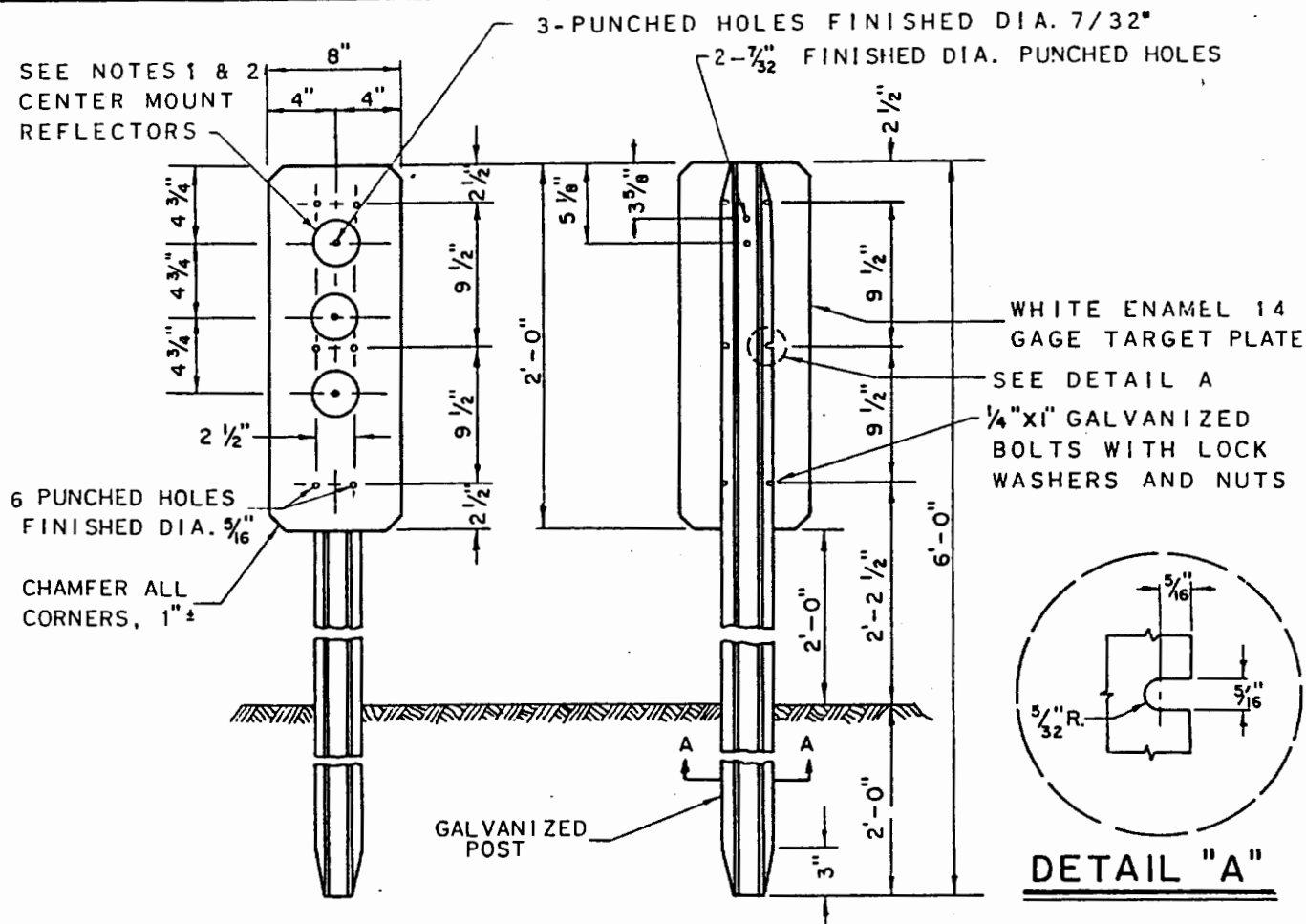
DATE: F.V.C. 7-85

C.L.J. 10-81

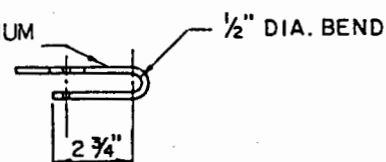
M. A. Nicholas
COUNTY ENGINEER

MARKERS

304



0.80" THICK ALUMINUM
(6061-T6 ALLOY)



REAR MOUNT BRACKET

NOTES:

1. CLEARANCE MARKER (W-60R) THREE 3 1/4" YELLOW CENTERMOUNT REFLECTORS.
2. GUIDE MARKERS ONE 3 1/4" WHITE CENTERMOUNT REFLECTOR.
3. REAR MOUNT REFLECTOR BRACKET SHALL BE USED ON CURVES. BRACKET SHALL BE ATTACHED WITH 3/16" BLIND ALUMINUM RIVETS AND USED TO MOUNT A 3" WHITE REFLECTOR.
4. ALL MATERIALS SHALL CONFORM TO STATE OF CALIFORNIA, STANDARD SPECIFICATIONS
5. HOLE DIAMETERS APPLY TO DIMENSION AFTER ITEM IS PAINTED.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65

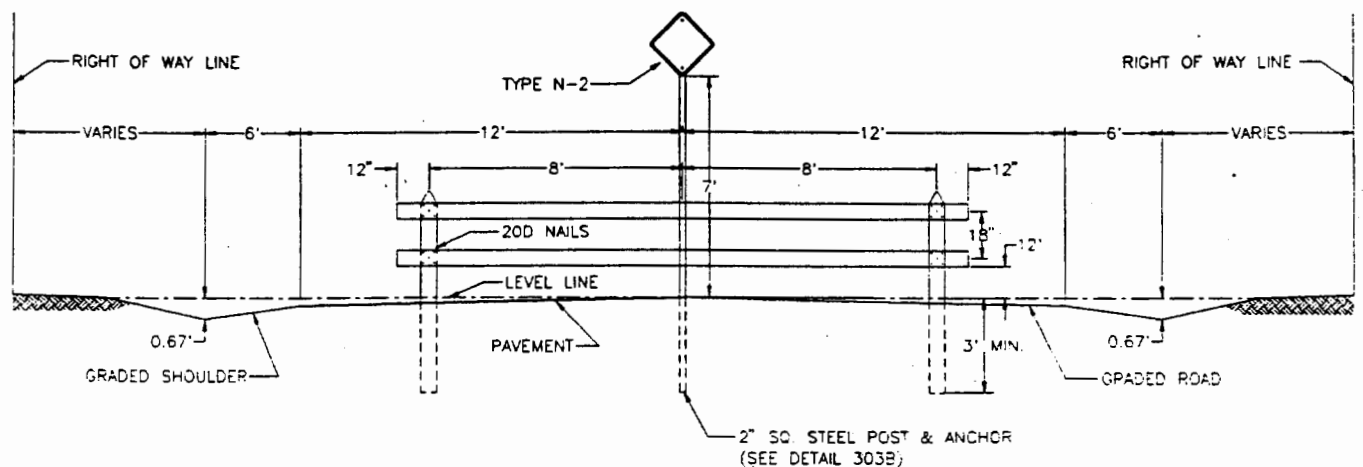
RJO 8-89

KEN A. MILLER

DIRECTOR OF TRANSPORTATION

MARKERS

304 A



SECTION VIEW

WIDTH OF ROADWAY	NUMBER OF PANELS	TOTAL LENGTH OF PANELS
20' ALLEY	2	18'
36'	4	34'
44'	5	42'
64'	7	58'
DESERT ROAD	VARIES	VARIES

NOTES:

1. POSTS ARE TO BE CHAMFERED 6" X 6" X 6" CONST. HEART REDWOOD, S4S. TWO CROSS PLANKS ARE TO BE 2" X 6" DOUGLAS FIR, CONSTRUCTION GRADE.
2. BARRICADE MATERIALS AND N-2 REFLECTOR SHALL CONFORM TO STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND TO FHWA TYPE IIIA OR VISUAL IMPACT PERFORMANCE (VIP) REFLECTIVE SHEETING.
3. ALL EXPOSED WOOD SURFACES SHALL BE GIVEN 2 BRUSH COATS OF FUME-RESISTANT EXTERIOR WHITE PAINT CONFORMING TO STATE OF CALIFORNIA SPECIFICATION 58-G-06.
4. FOR RAIL TO POST CONNECTIONS, PROVIDE TWO EACH 3/8" CARRIAGE BOLTS WITH CUT WASHERS AND NUTS.

STD5\305

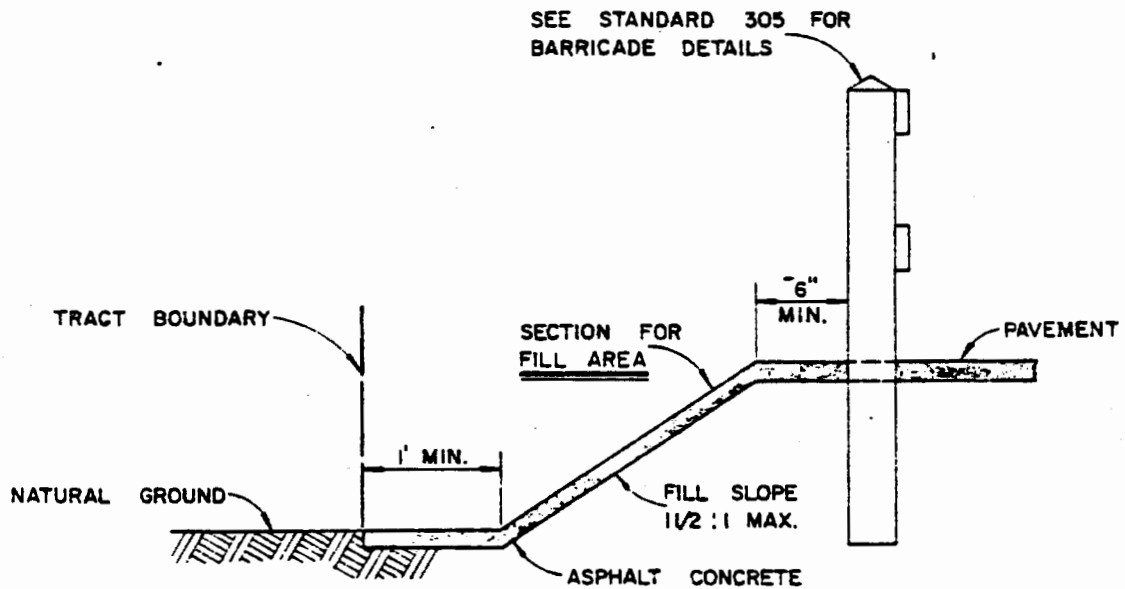
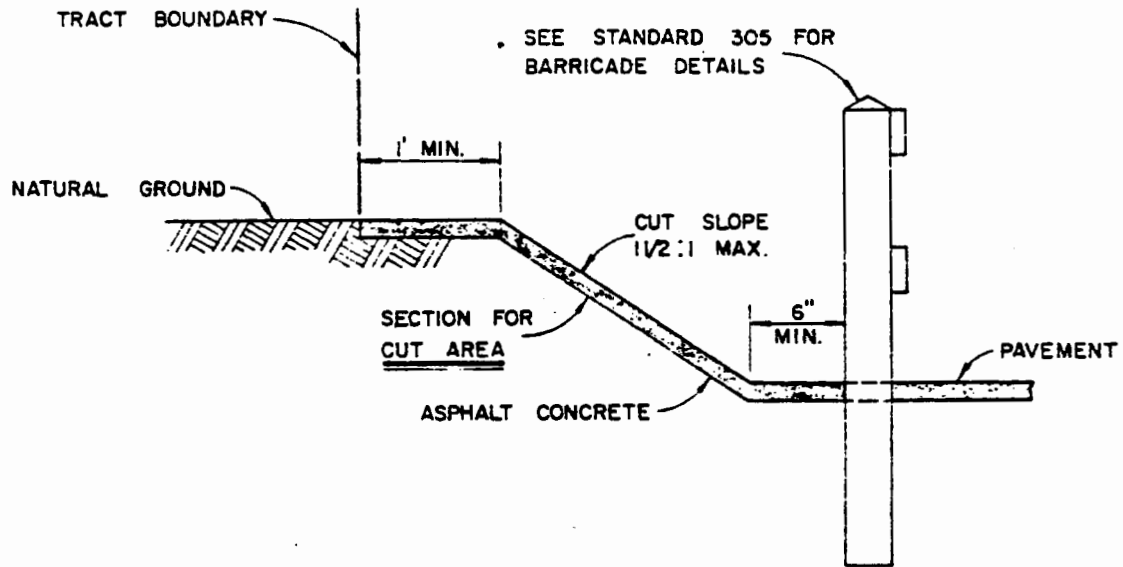
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

BARRICADE
URBAN AREA

305



NOTES:

1. ASPHALT CONCRETE SHALL BE MINIMUM 3 INCHES THICKNESS ON CUT OR FILL AREA.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

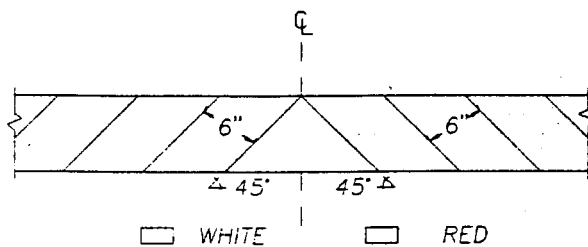
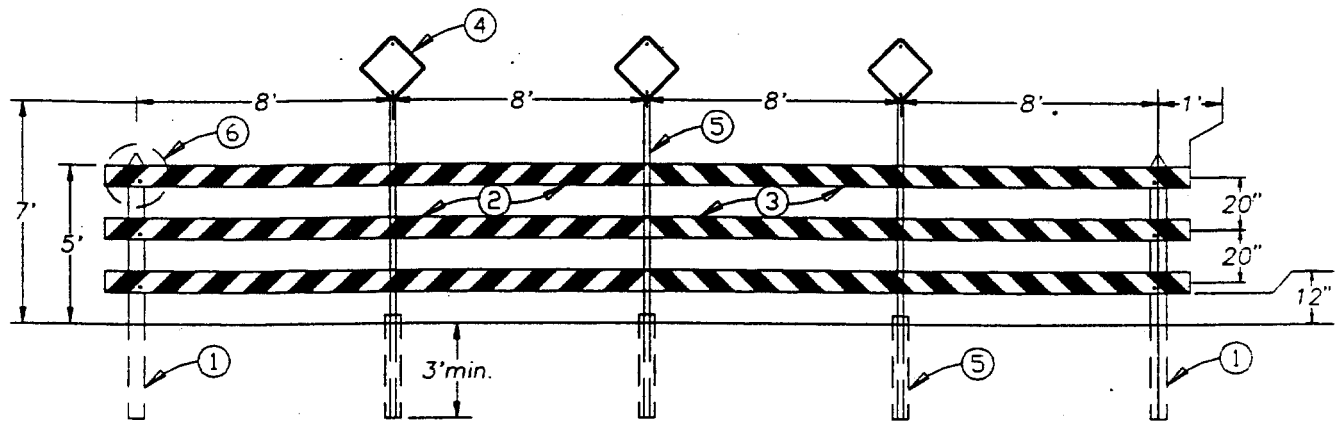
DATE: J.E.M. 10-85

R.A.T. 10-86

M. A. Nicholas
COUNTY ENGINEER

**END OF STREET
TEMPORARY PAVEMENT**

305a



WIDTH OF ROADWAY	NUMBER OF PANELS	NO. OF N2	TOTAL LENGTH OF RAILS
20' ALLEY	2	1	20' MAX.
26'	3	2	26'
36'	4	3	34'
44'	5	3	42'
64'	8	4	66'
80'	10	4	82'

③ REFLECTIVE TAPE DETAIL

NOTE: RAILS FACING IN TWO DIRECTIONS, NUMBER OF REFLECTORIZED RAILS SHOULD BE ON TWO FACES.

NOTES:

- ① - Post Is To Be 6" x 6" x Varies, Timber S.4S.
- ② - Three (3) Cross Panels To Be 2" x 8" x Varies, Timber S.4S.
- ③ - Reflective Tape Consists Of Reflective Diamond Grade Sheeting With High Tack Pressure Sensitive Adhesive, White And Red Tape With 6" Width. (See Detail Above)
- ④ - Object Marker Red Type N2 Sign Reflector Shall Conform To State Of California Standard Specification And To FHWA Type IIIA Or Visual Impact Performance (VIP) Reflective Sheeting. Use A Minimum Of Two (2) Signs (Similar To Standard Detail 306).
- ⑤ - 2" Square Steel Post And 2 1/2" Square Anchor Sleeve. (See Standard Detail 303B).
- ⑥ - Use 3/8" Diameter x 4 1/2" Long Lag Bolts (Galvanized) For Fastening Item 2 To Item 1. (Minimum 4 Bolts Per Connection).
- 7 - Rails Facing Traffic To Be Reflectorized.
- 8 - All Timber To Be S.4S Weather Resistant.
- 9 - All Dimensions are Nominal Lumber Dimensions.

STDS\305B

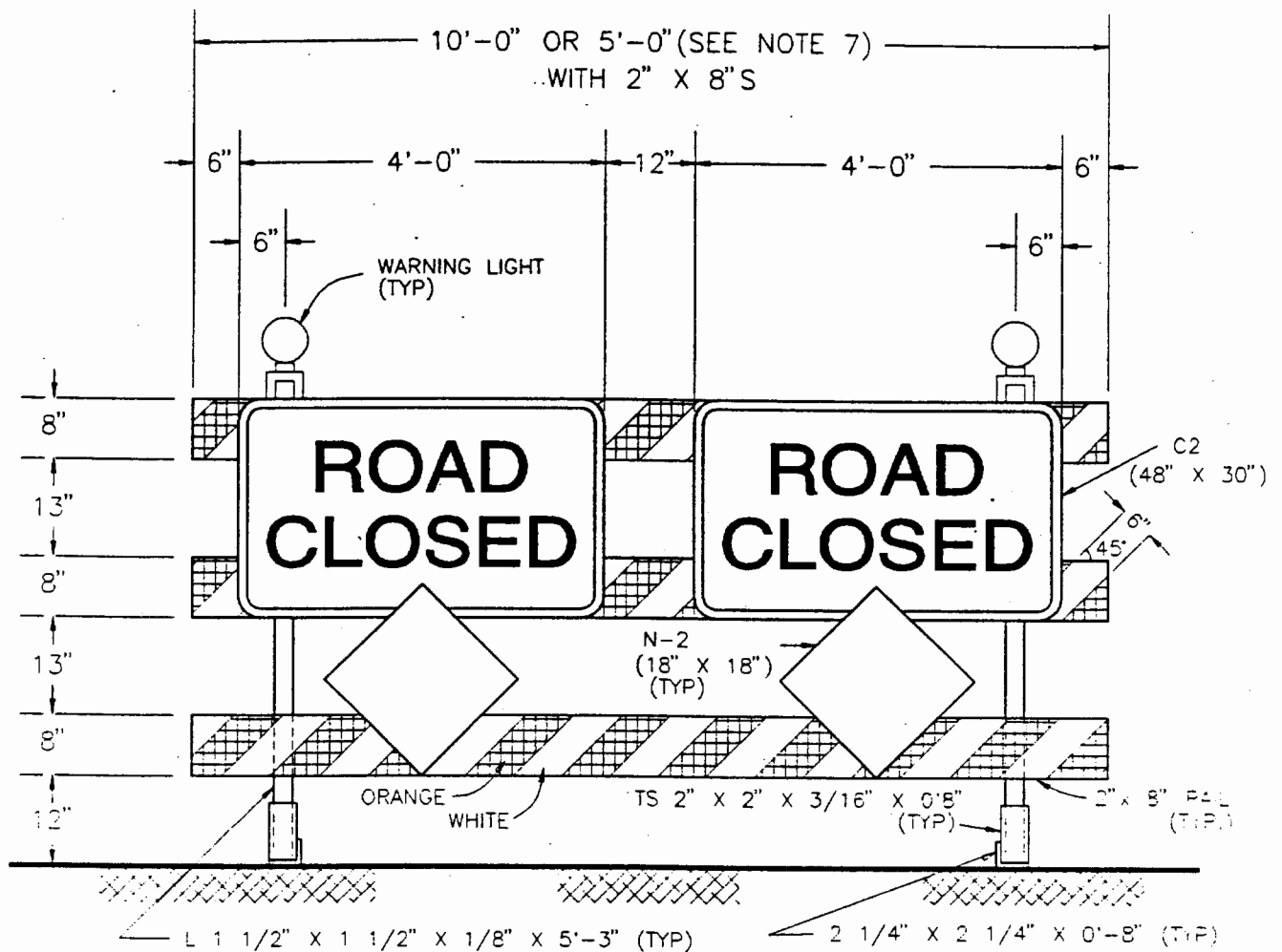
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SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

BARRICADE
RURAL AREA

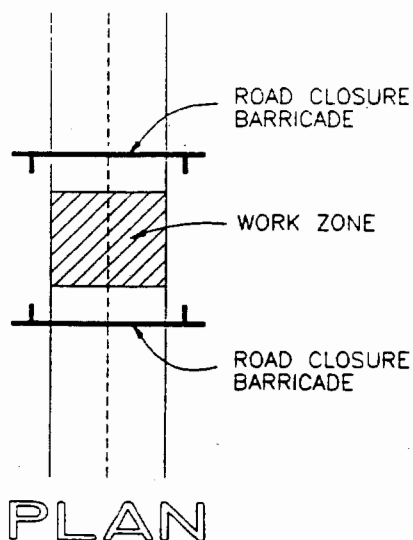
305B



SECTION VIEW

NOTES:

1. All timber shall be S4S.
2. White and orange painted stripes shall be reflectorized per FHWA II (Engineering Grade Sheeting).
3. Traffic Control Devices shall be of high intensity sheeting.
4. For rail to post connection, provide 2-3/8" Carriage Bolts with cut washers and nuts.
5. Advance construction signs are required.
6. Use N-2 with Visual Impact Performance (VIP) sheeting.
7. For 5'-0" barricade, use only one C-2 and N-2 mounted at the center of the assembly.



PLAN

STD5\305C

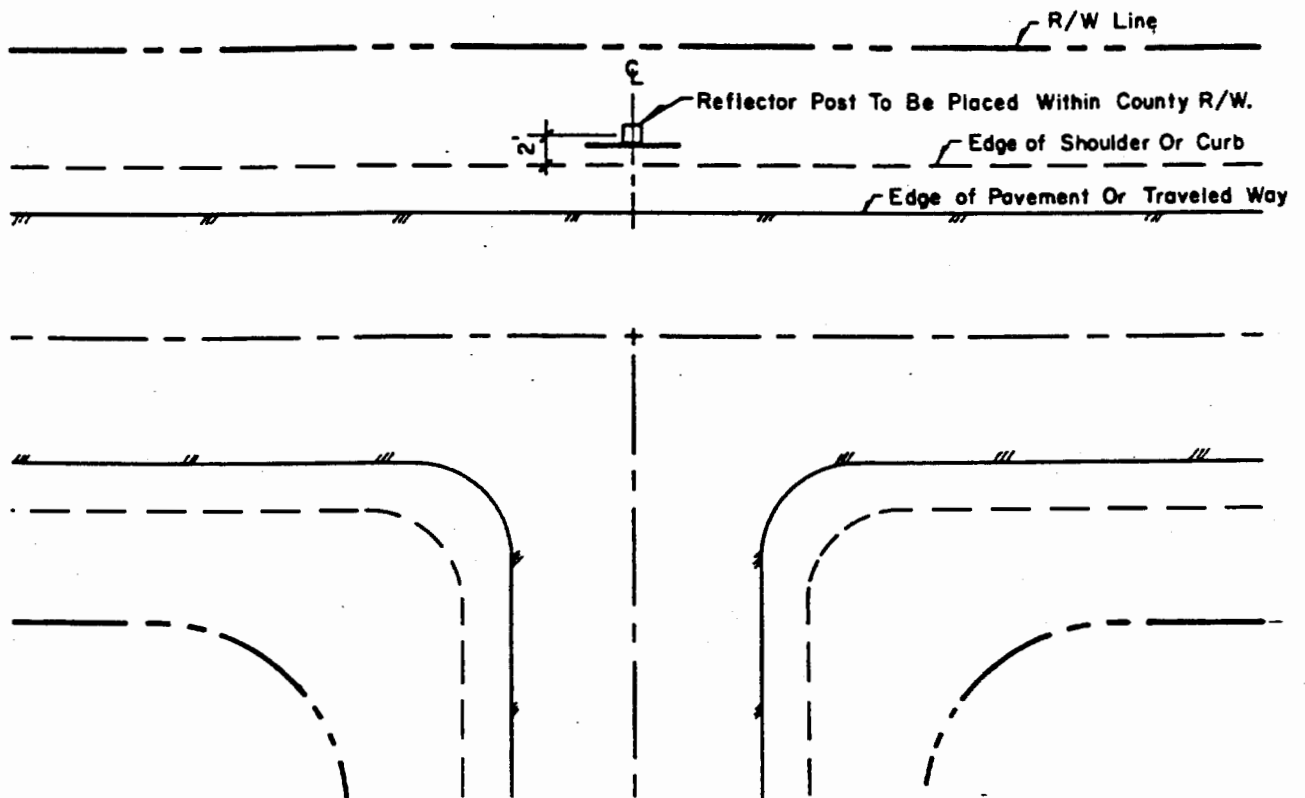
01/20/95

SAN BERNARDINO COUNTY TRANS. DEPT.

KEN A. MILLER
Director of Transportation

ROAD CLOSURE BARRICADE

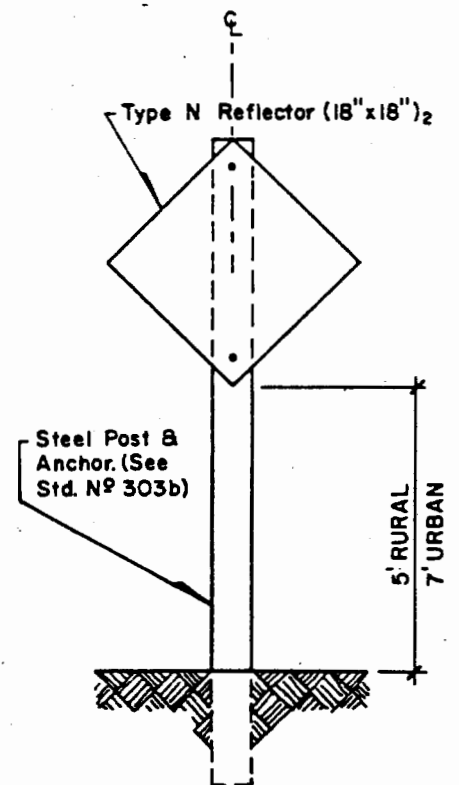
305C



PLAN

NOTES:

1. Post Shall Be 2"x2" Square Steel In Accordance With Standard N^o 303b.
2. Materials And Type N Reflector Shall Conform To State Of California, Standard Specifications.
Type N-1 Shall Be Yellow FHWA Type III Reflective Sheeting.
Type N-2 Shall Be Red FHWA Type III Reflective Sheeting.



ELEVATION

SAN BERNARDINO COUNTY TRANS. DEPT.

OCT. 6, 1993 v.h.c.

REV. 3/1/94

KEN A. MILLER
Director of Transportation

**POST WITH
REFLECTOR**

306

CENTERLINE STRIPING

L01

Traffic is permitted to pass for both directions of travel



Centerline pattern for use on two-lane streets and highways (normally used on local streets and highways).

L01a

Traffic is permitted to pass for both directions of travel



Centerline pattern with pavement markers for use on two-lane streets and highways.

L14

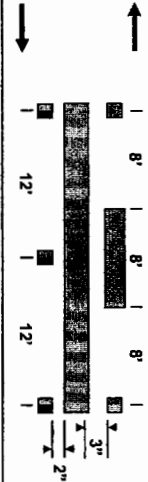
Traffic is permitted to pass along dotted line and passing is prohibited along solid line



One direction no passing pattern for use on two-lane streets and highways (normally used on local streets and highways).

L14a

Traffic is permitted to pass along dotted line and passing is prohibited along solid line



One direction no-passing pattern with pavement markers for use on two lane streets and highways.

Direction of Travel



4" Yellow Stripe



Two-Way Yellow Reflective Markers

One-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

STRIPING DETAILS

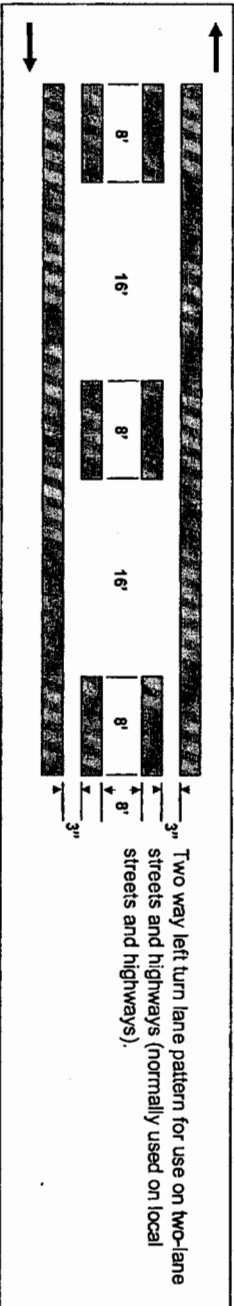
307

Revised 12/05

CENTERLINE STRIPING

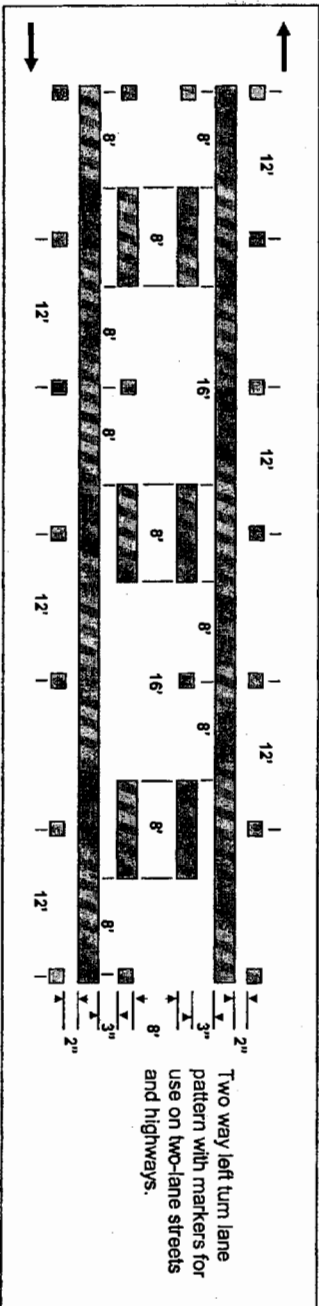
L07

4 Lanes Continuous Left-Turn Lane



L07a

4 Lanes Continuous Left-Turn Lane



Direction of Travel



4" Yellow Stripe

Two-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

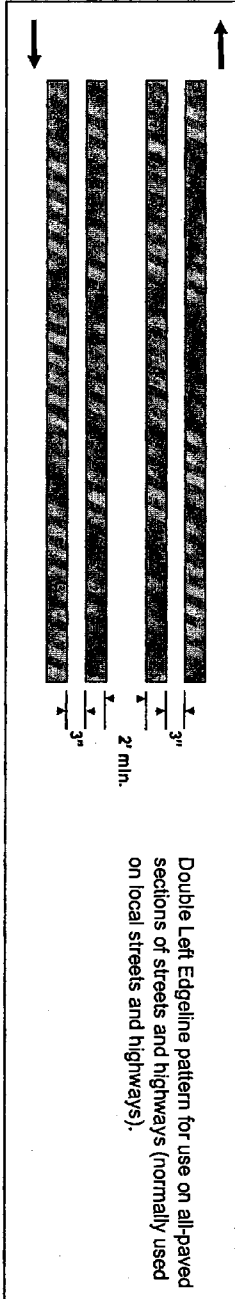
STRIPING DETAILS

307a

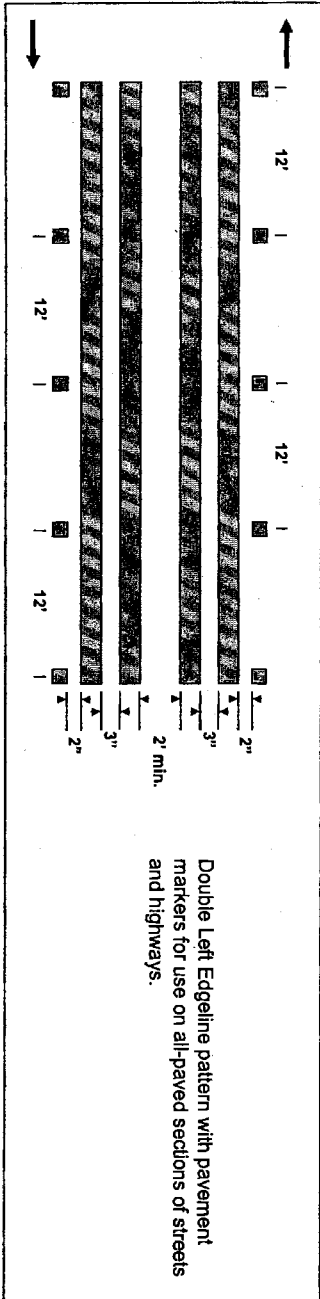
Revised 12/05

CENTERLINE STRIPING

L05 Painted Median



L05a Painted Median



Direction of Travel → 4" Yellow Stripe → Two-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

STRIPING DETAILS

307b

Revised 12/05

CENTERLINE STRIPING

L12

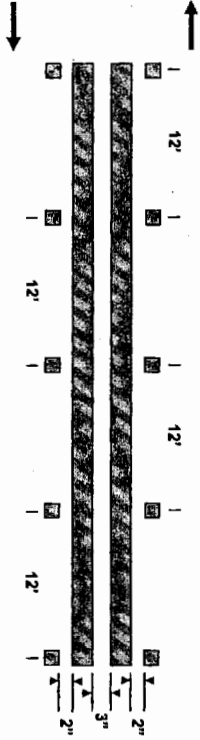
2 Lanes 1 Each Direction, No Passing



Two-direction no-passing pattern for use on two-lane streets and highways (normally used on local streets and highways).

L12a

2 Lanes 1 Each Direction, No Passing



Two-direction no-passing pattern with markers for use on two-lane streets and highways.

Direction of Travel



4" Yellow Stripe



Two-Way Yellow Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

STRIPING DETAILS

307c

Revised 12/05

LANELINE STRIPING

L26 Laneline Quarterstripe Pattern



Laneline pattern for use on multi-lane streets and highways (normally used on local streets and highways).

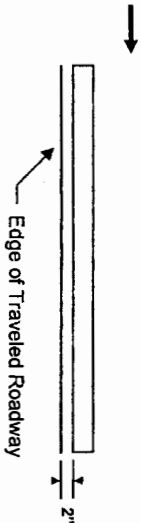
L26a Laneline Quarterstripe Pattern



Laneline pattern with pavement markers for use on two-lane streets and highways.

EDGE LINE STRIPING

L27 Right Edgeline



Right Edgeline pattern for use local streets and highways. It is generally dropped at the beginning of intersection flares on conventional highways.

Direction of Travel ☐ 4" White Stripe ☐ One-Way White Reflective Markers

SAN BERNARDINO COUNTY TRANS. DEPT.

NOT TO SCALE

PAT MEAD

Director of Public Works

STRIPING DETAILS

307d

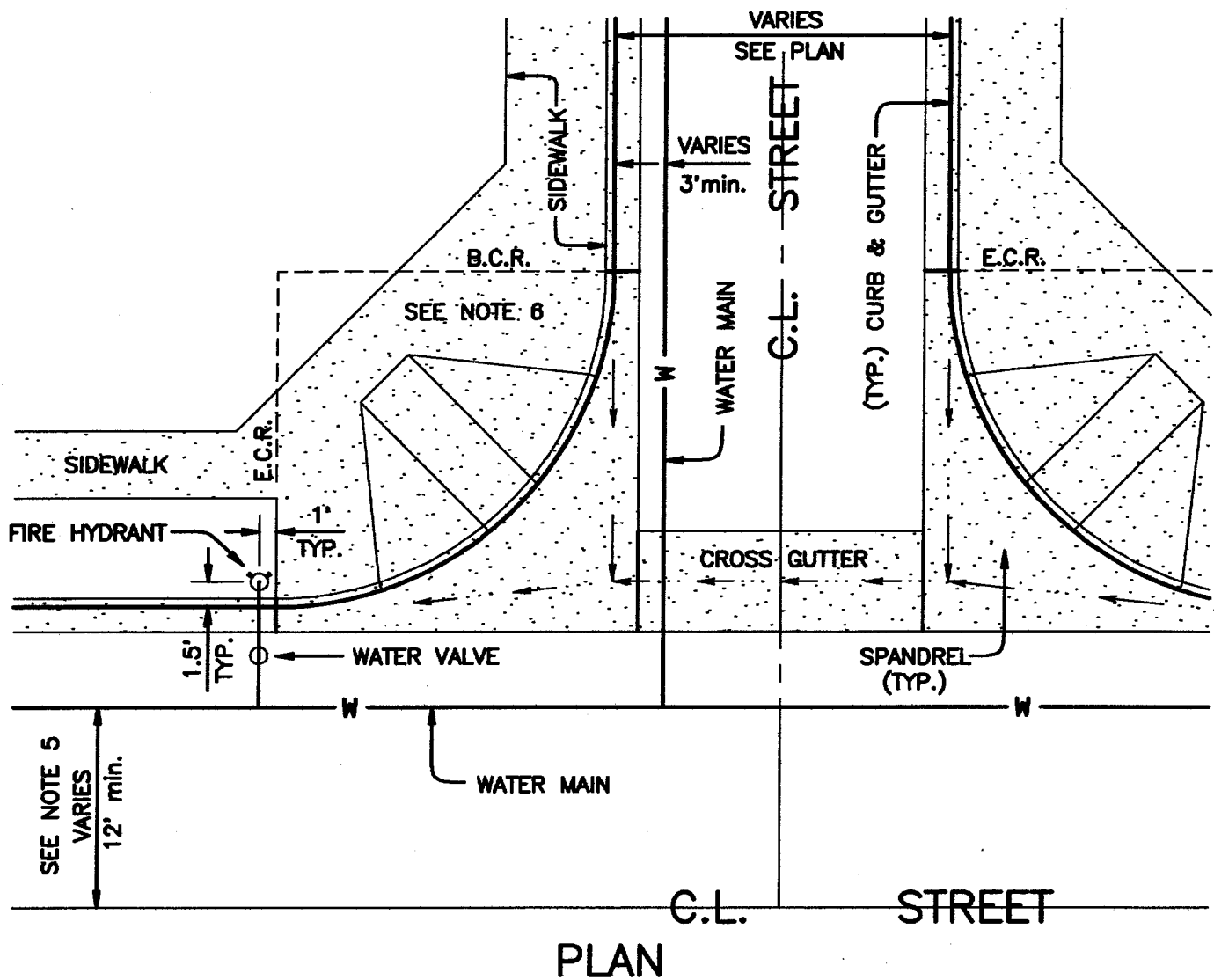
Revised 12/05

REFER TO STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION,
STANDARD PLAN MANUAL FOR CURRENT CONSTRUCTION & MATERIALS
REQUIREMENTS.

SAN BERNARDINO COUNTY TRANS. DEPT.		METAL BEAM GUARDRAIL	308
	KEN A. MILLER		
	Director of Transportation		

REFER TO STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION,
STANDARD PLAN MANUAL FOR CURRENT CONSTRUCTION & MATERIALS
REQUIREMENTS.

SAN BERNARDINO COUNTY TRANS. DEPT.		METAL PLATE GUARDRAIL	309
	KEN A. MILLER		
	Director of Transportation		



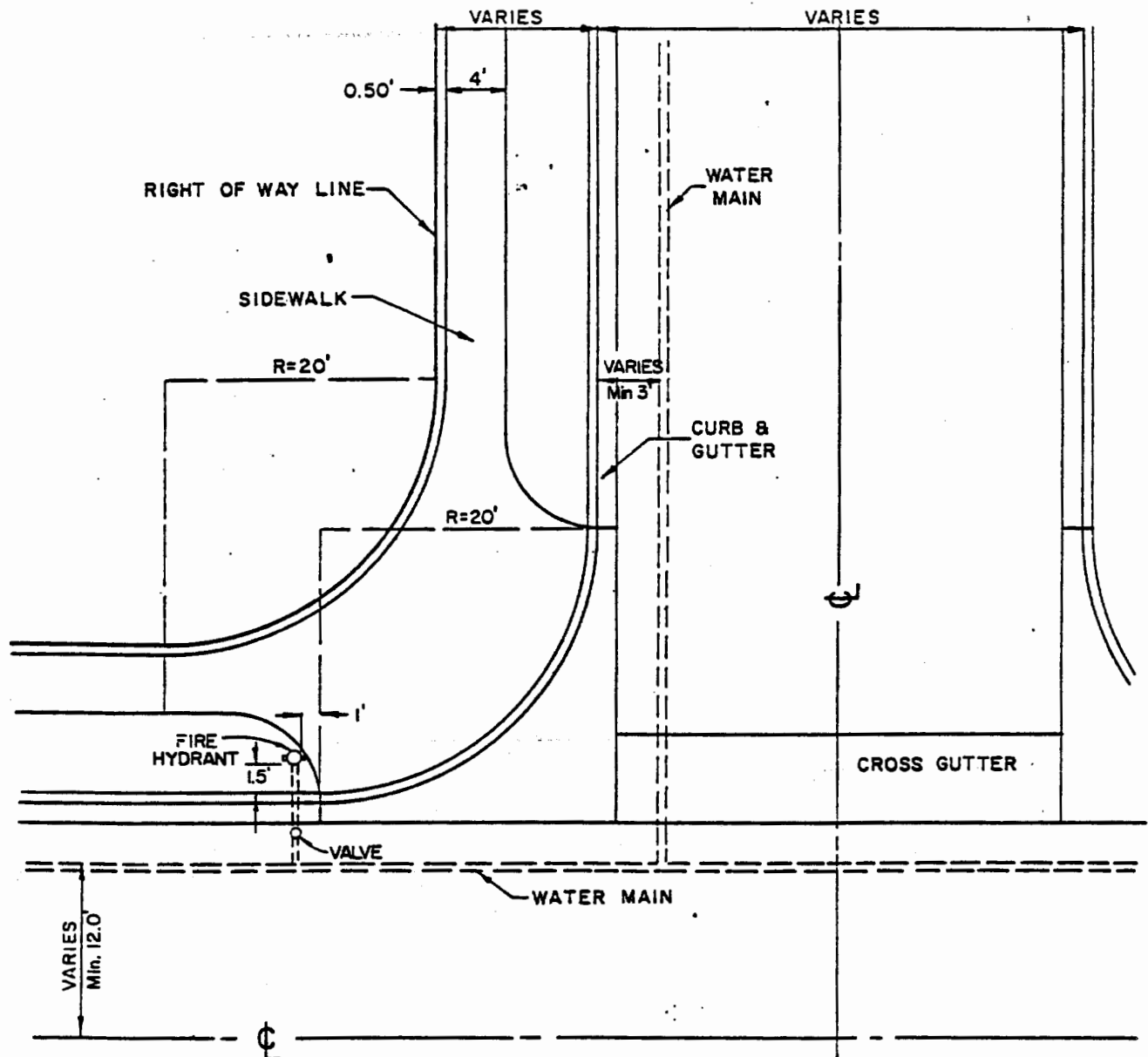
NOTES:

1. LOCATION OF WATER LINES AND VALVES SHALL BE SHOWN ON THE PLAN VIEW. FOR SUBDIVISION IMPROVEMENT PLANS. SEE HEALTH DEPARTMENT STANDARDS, SECTION 7, DISTRIBUTION SYSTEMS, FOR MINIMUM DEPTH.
2. HYDRANT TO BE SET PLUMB, WITH NOZZLE A MINIMUM OF EIGHTEEN (18") INCHES ABOVE GROUND LEVEL. WHEN HYDRANTS ARE PLACED BEFORE GRADING IS COMPLETED, THE FINAL GRADE LINE, AND ACCESSIBILITY SHOULD BE CONSIDERED.
3. NO OBSTRUCTIONS SUCH AS POLES, GUY LINES, ETC. SHOULD BE PLACED CLOSER THAN (5') FEET TO HYDRANT.
4. REFR TO STREET IMPROVEMNT PLANS FOR RIGHT-OF-WAY LOCATION.
5. FOR RECOMMENDED UTILITY LOCATION SEE COUNTY STD. 311
6. FOR CURB RETURN RADIUS & SIDEWALK RAMP DETAILS SEE COUNTY STD. 110

B.C.R. - BEGIN CURB RETURN

E.C.R. - END CURB RETURN

CO. OF SAN BDNO. DEPT. OF PUBLIC WORKS		FIRE HYDRANT LOCATION	310
REVISED: DATE	PATRICK J. MEAD		
G.M. 7-05	Director of Public Works		



NOTES:

1. LOCATION OF WATER LINES AND VALVES SHALL BE SHOWN ON THE PLAN VIEW, FOR SUBDIVISION IMPROVEMENT PLANS. SEE HEALTH DEPARTMENT STANDARDS, SECTION 7, DISTRIBUTION SYSTEMS, FOR MINIMUM DEPTH.
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3. NO OBSTRUCTIONS SUCH AS POLES, GUY LINES, ETC. SHOULD BE PLACED CLOSER THAN (5') FEET TO HYDRANT.

SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: F.V.C. 7-65

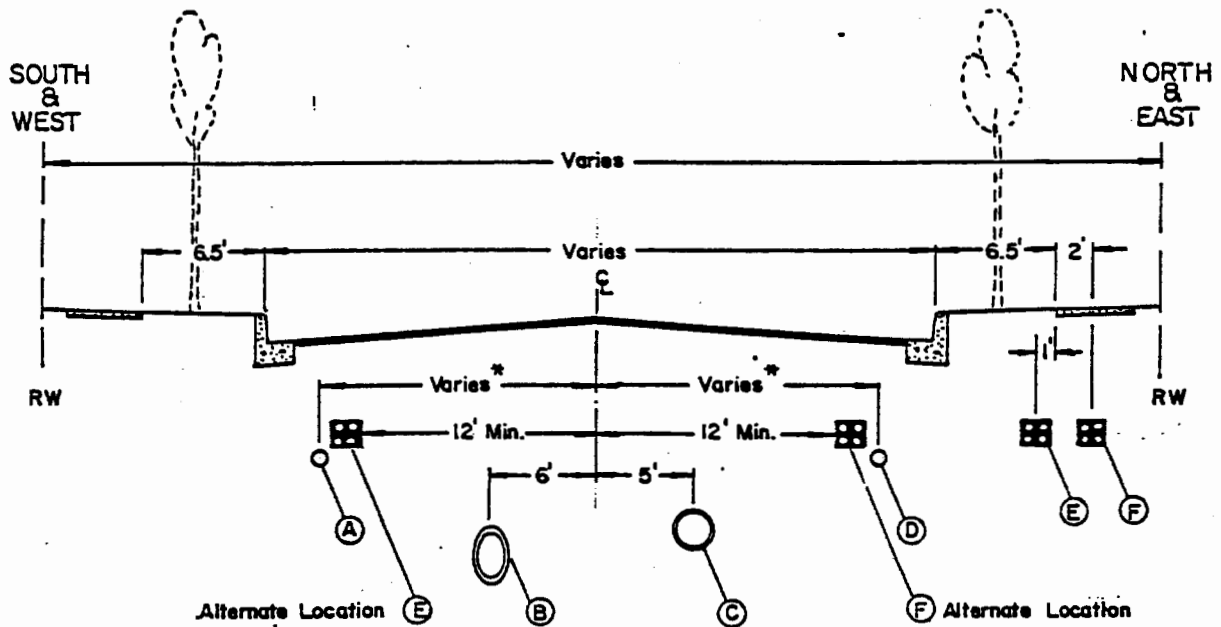
DATE: 7-17-72

M. A. Nicholas
COUNTY ENGINEER

**FIRE HYDRANT
LOCATION**

310

RECOMMENDED UTILITY LOCATION



UTILITY	MIN. COVER
(A) WATER	30"
(B) STORM DRAIN	Varies
(C) SEWER	Varies
(D) GAS	30"
(E) POWER	36"
(F) TELEPHONE - CATV	30"

RECOMMENDED UTILITY INSTALLATION SCHEDULE

1. STORM DRAIN
2. SEWER
3. POWER & TELEPHONE
4. CURB & GUTTER
5. WATER
6. GAS
7. PAVING

NOTES:

1. WHERE ULTIMATE STREET IMPROVEMENTS ARE TO BE CONSTRUCTED, MINIMUM COVER OF UTILITY LINES MAY BE VARIED TO FACILITATE INSTALLATION.
2. THE UTILITY COMPANIES SHALL MAKE EVERY EFFORT TO LOCATE THEIR FACILITIES IN THE RECOMMENDED LOCATIONS, PARTICULARLY IN NEW SUBDIVISIONS.
3. EDISON & TELEPHONE UTILITIES MAY USE A COMMON TRENCH. ALTERNATE LOCATION MAY BE EITHER THE EDISON POSITION OR THE TELEPHONE POSITION.
- * 4. VARIES 3' FROM THE CURB FACE TO 14' FROM C.
5. THE CENTER 24' OF THE STREET SHALL BE RESERVED FOR SEWER AND STORM DRAIN INSTALLATION.
6. SURFACE OF VAULT OR MANHOLE MUST MATCH PAVEMENT AND PARKWAY GRADES.
7. REPAIR OF TRENCHES AND REPLACEMENT OF PAVED SURFACING IN EXIST COUNTY ROADS SHALL BE IN ACCORDANCE WITH CURRENT "SPECIFICATIONS FOR TRENCH REPAIR."
8. WHENEVER POSSIBLE, MANHOLE COVERS SHALL NOT BE PLACED WITHIN THE SIDE-WALKS.

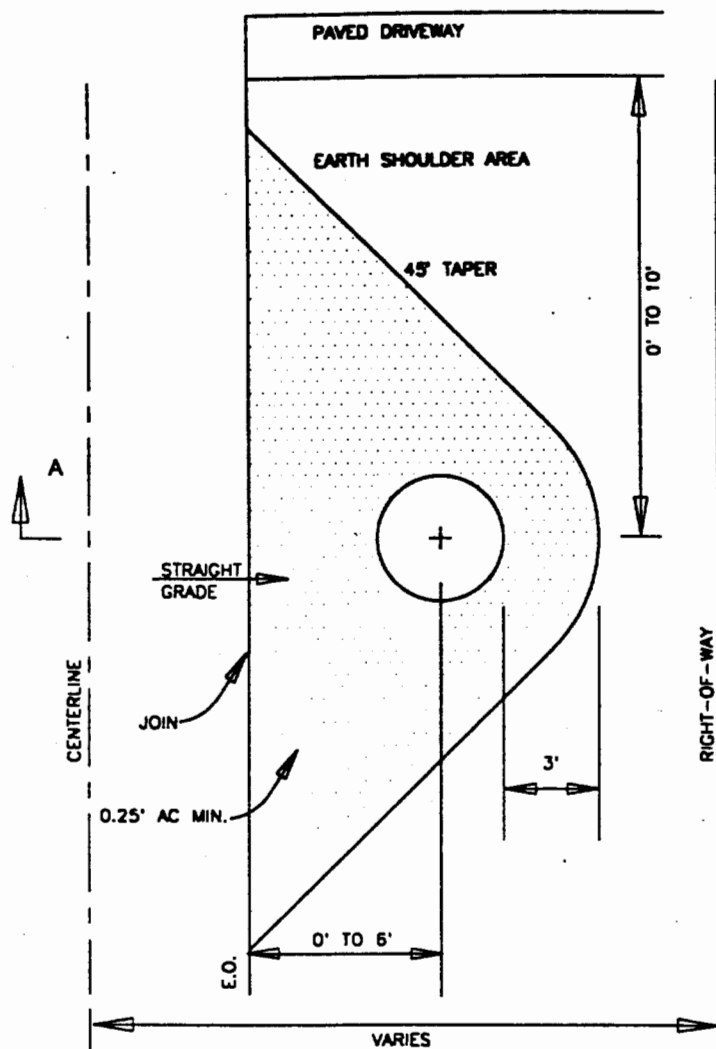
SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 7/7/72

M. A. Nicholas
COUNTY ENGINEER

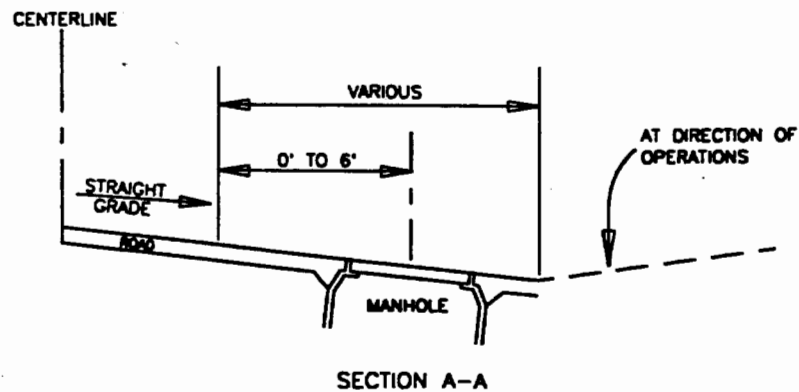
UNDERGROUND
UTILITY LOCATION

311



GENERAL NOTES:

1. MANHOLE SHALL BE SET TO EXISTING SHOULDER GRADE.
2. IF CENTER OF MANHOLE IS WITHIN 10' OF PAVED DRIVEWAY, NEW PAVING SHALL TIE INTO EXISTING DRIVEWAY.
3. IN THE MOUNTAIN AREA WHEN MANHOLES ARE ADJUSTED TO PAVEMENT GRADES, THEY SHALL BE 1/2 TO 3/4-INCH BELOW ADJACENT PAVEMENT SURFACE.



STDS\311-A

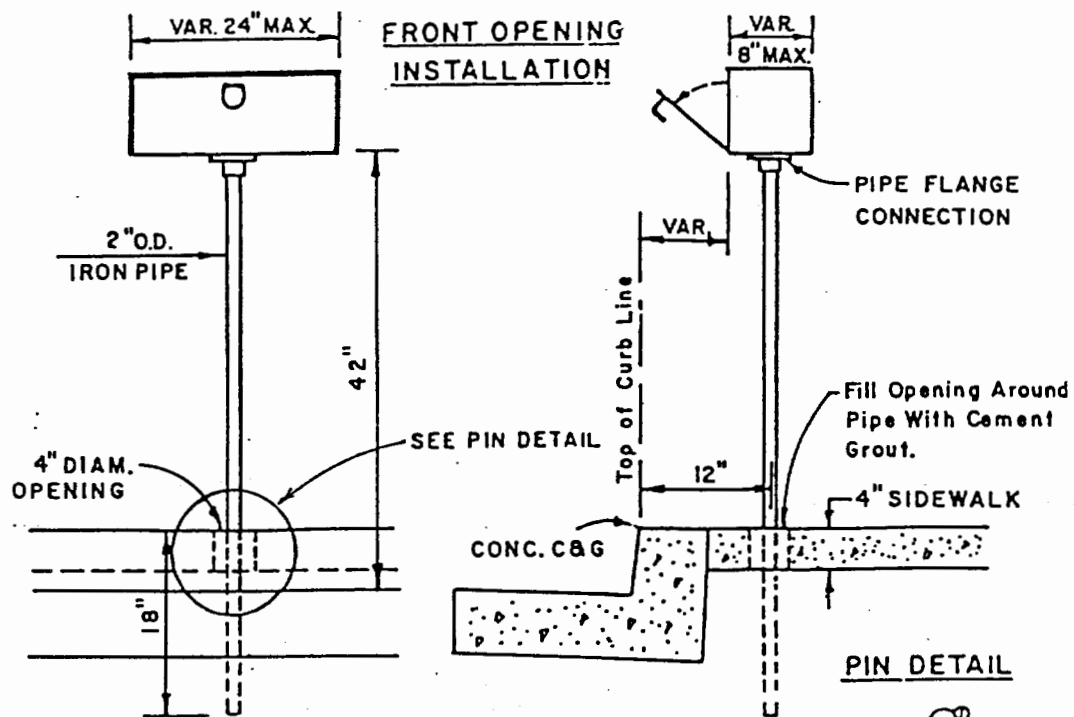
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SAN BERNARDINO COUNTY TRANS. DEPT.

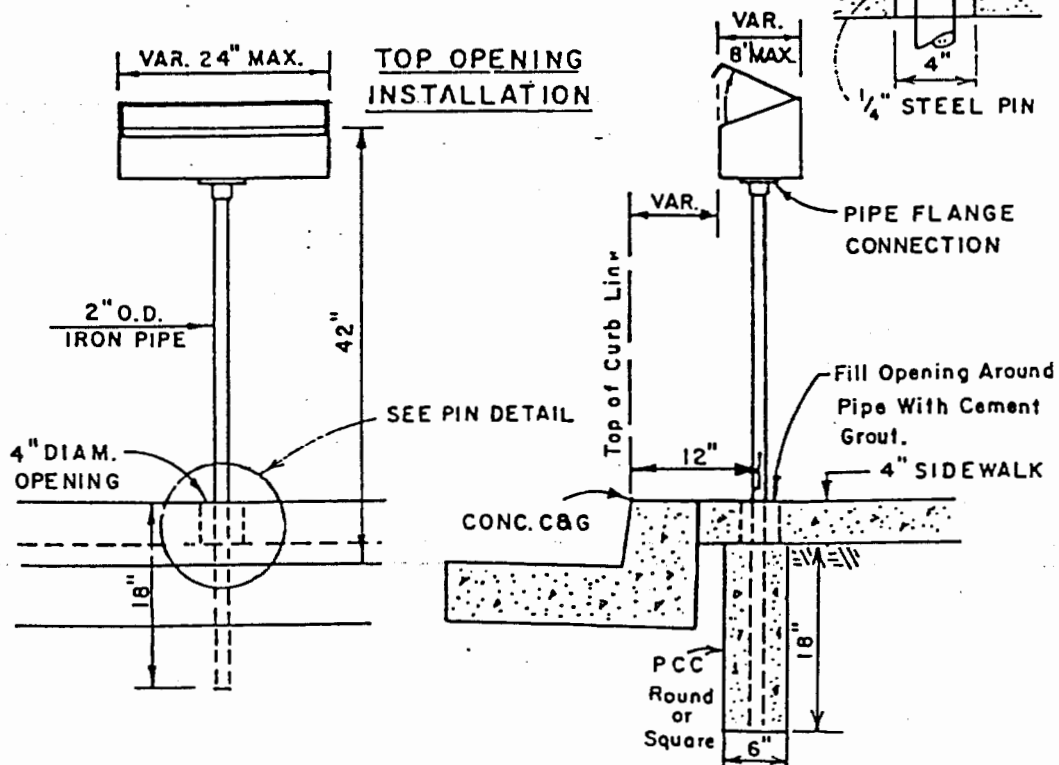
KEN A. MILLER
Director of Transportation

**MANHOLE APRON
PAVED ROAD**

311-A



NOTE: END OPENING MAILBOX NOT PERMITTED.
FACE OF MAILBOX SHALL NOT EXTEND
PAST TOP OF CURB LINE.



SAN BERNARDINO COUNTY ROAD DEPARTMENT

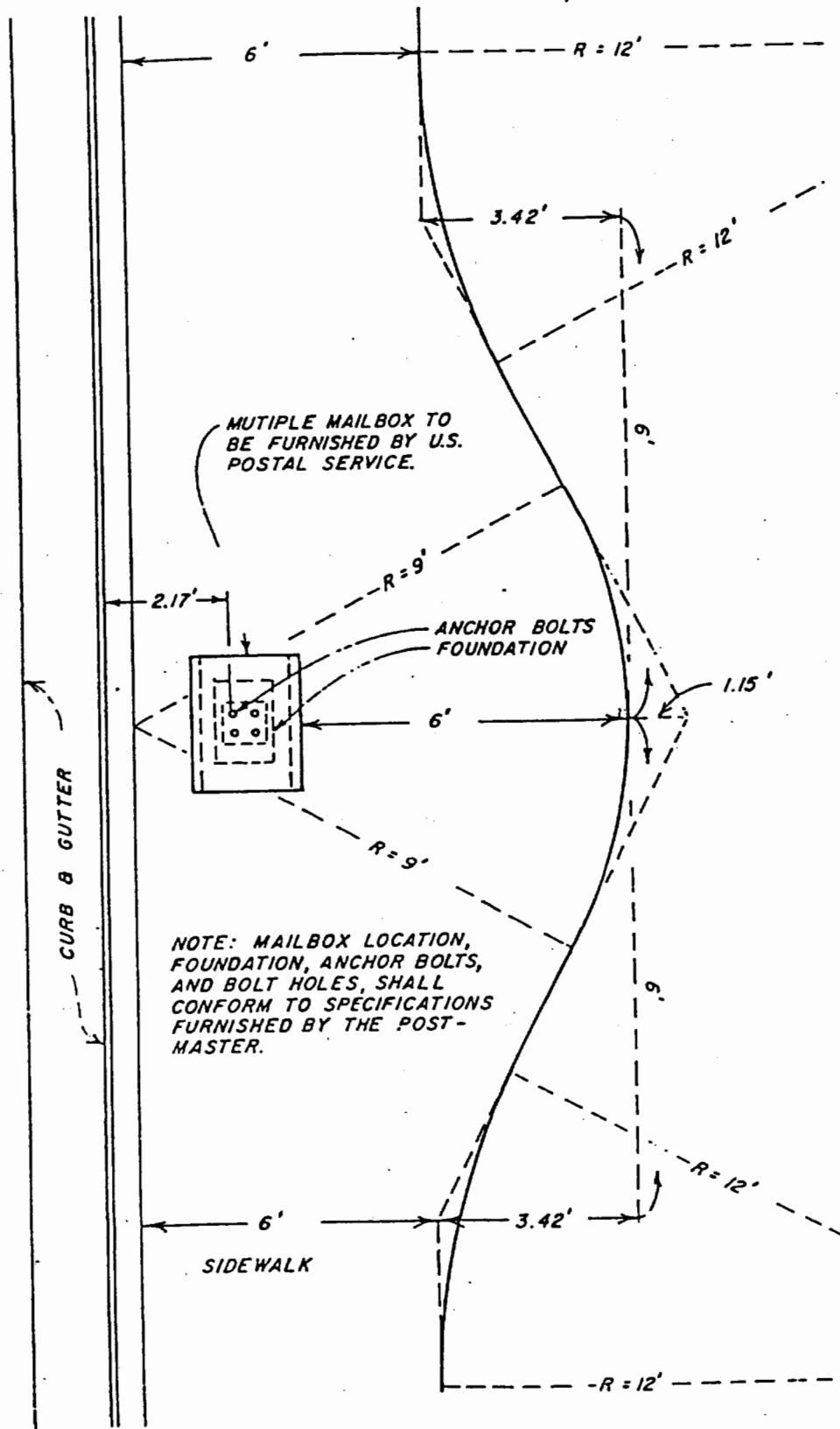
DATE:

12.08.89

Ken A. Miller
DIRECTOR OF TRANSPORTATION

SINGLE MAILBOX
INSTALLATION

312



SAN BERNARDINO COUNTY ROAD DEPARTMENT

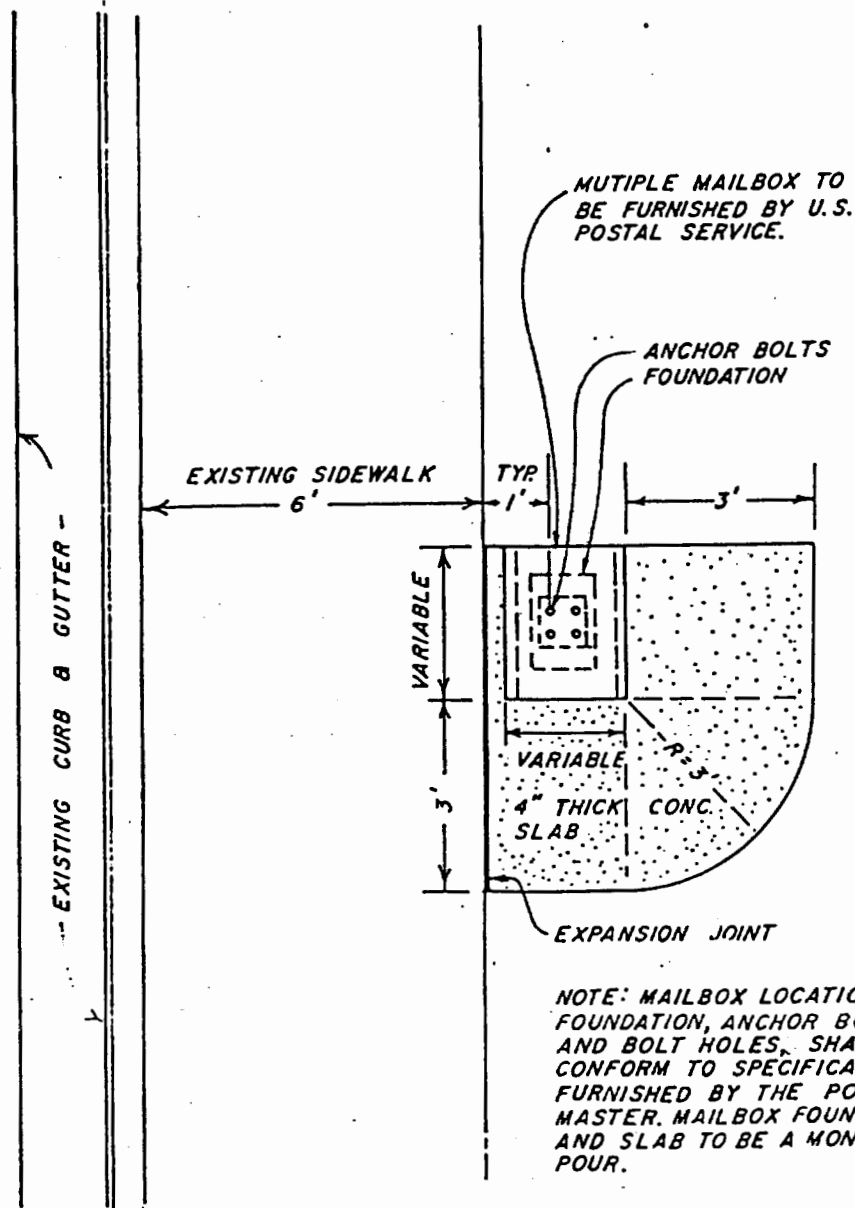
DATE: 12-8-89

Ken A. Miller

DIRECTOR OF TRANSPORTATION

MULTIPLE MAILBOX INSTALLATION
FOR
NEW SIDEWALK

312 A.



SAN BERNARDINO COUNTY ROAD DEPARTMENT

DATE: 120 8.89

Ken A. Miller
DIRECTOR OF TRANSPORTATION

MULTIPLE MAILBOX INSTALLATION
FOR
EXISTING SIDEWALK

312 B.